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DIAGNOSIS AND TREATMENT OF VARIOUS TYPES OF HAY FEVER*

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For many years it has been recognized that seasonal hay fever is caused chiefly by the pollens of plants, and many methods of treatment have been described. The fundamentals of treatment depend upon two factors: First, the accurate determination of the specific pollen protein to which the patient is sensitive, and second, the time and extent of desensitization to that specific protein.

The plants which cause hay fever are practically always the wind-pollinated plants. Almost any one of the large number of plants to which patients are exposed may cause hay fever in rare instances, especially if the flowers are deliberately smelled, or if they are grown in great profusion in close contact with an individual or when used as room decorations. These pollens will produce a positive skin test, but they are a minor fact in the hay fever problem. Treatment with these pollens is rarely necessary because the patients can easily avoid the cause of the symptoms.

Hay fever plants can be summarized as follows: The plant must be wind-pollinated; the flowers inconspicuous; the pollen small and buoyant, generated in profuse quantities and capable of being carried a great distance—the ragweeds, for instance, 15 microns in size, profuse in pollen and can be carried by the wind several miles. Plants having these characteristics are suspicious from a hay fever standpoint, but to be absolutely positive they must be capable of producing a hay fever reaction by means of the cutaneous test. The early writers blamed many harmless plants as the cause of hay fever, such as goldenrod, daisy, sunflower, roses, dandelion and many other bright flowers. These flowers bloom during the hay fever season and many of them have a pollen which, in sensitive individuals, may produce a hay fever reaction or cause hay fever symptoms on direct contact, but they are insect-pollinated, the pollen is heavy and not found in the air.

Hay fever symptoms are more aggravated during high winds, as more pollen is shaken from the plants and the liberated pollen is carried to a greater distance. High temperature has very little, if any, direct effect on hay fever symptoms. A continued rain affords some relief to patients in many instances, the action of the rain is to precipitate the floating pollen and to prevent more pollen from arising from the plants. Following the rains, pollens are again carried into the air and continue their irritating effects. Hay fever patients are generally more distressed and their symptoms aggravated by the dust during a drive into the country, especially in a section where weeds and grass abound, as pollens are mixed with the dust and the passing of the vehicle stirs it up. This also applies to railway travel during the hay fever season. Dust in the house, public buildings, etc., during hay fever season is impregnated with hay fever pollens. Action of electric fans disturbs this dust and contained pollen which explains the discomfort of many hay fever patients at the theatre, places of business and in their homes when fans are used.

It has been demonstrated that of the wind-pollinated plants that distribute their pollen in enormous quantities and are carried the greatest distance by the wind are the ragweeds. The grasses also distribute their pollen in enormous quantities, but on account of the greater size of their pollen, their potential area is more confined. This is also true of corn which gives a positive hay fever reaction and has an abundance of pollen, but is of little importance as a hay fever plant, as the size of the pollen is so large.

To simplify the question of pollen therapy, Scheppegreil and others, after careful investigation, succeeded in seggregating into groups the most important of the hay fever

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plants. These groups are as follows:

(1) Trees, which play an important part in the cause of hay fever symptoms, especially the early spring type in some localities. In Oklahoma the trees are not a great factor in the hay fever problem. I have found the cottonwood to be the chief offender among the trees.

(2) Gramineae (grass family) the most important factor in spring hay fever, pollinating early and lasting until early summer. My experience has been that individuals sensitive to the pollens of grasses will give a hay fever reaction to several varieties. The chief offenders in this family in this state are bermuda grass, June grass and sweet vernal. Pollination begins the latter part of May. Hay fever symptoms due to the pollens of grasses are only moderately severe.

(3) Chenopodaceae (lambs-quarter, Russian thistle and dock) in Oklahoma is a fairly important group, especially in the western section, due to the profusion of Russian thistle. Symptoms from these pollens begin about the first of July. The treatment is very satisfactory.

(4) Artemisia (wormwood) is significant in the Pacific and Rocky Mountain states. It is also of significance in western Texas. It plays practically no part in our own state.

(5) Amarantha (pigweed family) is a fairly important factor in this state. This group includes the pigweed and the careless weed.

(6) Ambrosiaceae (rag weed) is the most important of all the groups and is responsible for at least 80 per cent of fall hay fever in the state of Oklahoma. In the East, the slender ragweed (ambrosia elatior) is the principal offender, while the giant ragweed (ambrosia trifida) is of chief importance in this state.

Hay fever due to pollens, unless complicated with a bacterial infection, is seasonal in type, the onset of the symptoms beginning about the same time of the year, varying slightly with prevailing weather conditions. Many seasonal hay fever patients have superimposed a bacterial infection which gives them hay fever symptoms throughout the year. True, perennial hay fever may be due to the foods or the protein of animal hair, face powder, hair dye, etc. I have observed several patients of this type who were entirely relieved of their symptoms from the elimination of the toxic element.

The complete and thorough diagnosis of a hay fever patient is imperative, and the importance of the cutaneous test is conceded by all authorities. The intradermal test is complicated and very misleading. The cutaneous test is harmless, simple in technique and specific. A positive reaction consists of a raised urticarial wheal surrounded by a zone of erythema. The wheal should measure at least 5 mm. in diameter. Most patients will react to several members of the same family group. That is to say, a patient, who is preponderantly sensitized to one of the rag weeds will give minor reactions to other members of the composite family. So far as treatment is concerned, the minor reactions should be ignored, and the pollen giving the major reactionn should be chosen for treatment. Patients sensitive to the composite group alone require only one pollen for treatment. If the one giving one of the major reactions is selected for treatment, it will convey a tolerance for all the other members of that botanical group. However, desensitization to one group will convey no tolerance at all to an unrelated group. Patients, sensitive to both the composite and the gramineae family require separate and dis-associated treatments with their respective pollen extracts, and, of course, at difference times of the year. These extracts cannot be combined. The use of mixed pollen extracts is condemned by all authorities.

Black and Black of Dallas, Texas, find most of their patients to be either vernal or autumnal in type, but not reacting to pollens of both groups. My experience, as well as that of many others who are working in this field, is very much different. I find that at least one-third of my patients belonging to the autumnal group are also quite sensitive to one member of the gramineae family. These patients have mild hay fever symptoms during June and July, ending in August and September with severe symptoms. If this fact is not taken into consideration, and those patients who are sensitive to a member of the grass family are not desensitized to the same, the best results from fall treatment of them cannot be hoped for. The pollen from the grasses irritates the mucous membrane of the nasal passage, thus producing excellent soil for irritation by the fall pollens.

There is a group ot plants, including lambs-quarter and Russian thistle, which is of significance as a cause of hay fever in the territory west of El Reno. These plants begin to pollinate about the first of July. The symptoms are only moderately severe, but again they are good producers of soil for the ragweed pollen. In those

cases in which the patient is sensitive to both this group and the fall group, it is very important that the patient be desensitized to this group, and later, to the fall group. The treatment of those patients who are sensitive only to the midsummer group is proving to be very satisfactory.

There is a class of hay fever patients who are not sensitive to the protein or pollen of plants, but to the protein of various dusts, such as orris root and rice in face powder, dander of different feathers and hairs, and to the protein of foods.

There is another class of so-called hay fever patients that on being tested are not found sensitive to any protein. This is a so-called vaso-motor type of rhinitis. Personally, I believe that this type of rhinitis has a protein background, probably due to the split proteins of metabolism.

Successful treatment depends upon determining definitely the proteins to which the patients are sensitive, and the care and degree of desensitization. Several commercial firms have placed on the market pollen proteins for the treatment of hay fever. Most of them are fool-proof so far as injury to the patient is concerned. The majority of these firms have collected eastern pollens. For this reason, we cannot hope to obtain the best results with their products. In the first place, to treat every patient the same, by giving 10, 12 or 15 doses according to their outline, does not seem reasonable, as some patients do not require as heavy doses of the pollen extract for complete desensitization as others do. Again, I find patients who are not sensitive, or only slightly so, to the eastern ragweed pollen, but who are very sensitive to the pollen of the Oklahoma ragweed.

To obtain good results, one should use for treatment pollens secured from the native plants and prepared in such dilutions that the dose may be gradually increased to the physiological limit, instead of giving 10, 12 or 15 doses according to commercial outline. The schedule of treatment as outlined by Walker and others, with some modifications, is as follows: Test the patient with the various dilutions and begin desensitizing with that dilution which is just lower than the greatest dilution to which the patient is sensitive. Most patients are sensitive to the dilution 1-5000, therefore, begin with 1-10,000 sol.; 1:10,000, give 0.15 C. C.; 1:5,000, give 0.15 C. C., 0.25 C. C., 0.35 C. C., 0.45 C. C.; 1:1,000, give 0.15 C. C., 0.25 C. C.; 1:500, give 0.15 C. C.; 0.25 C. C., 0.35 C. C., 0.45 C. C.; 1:100, give 0.15 C. C., 0.2 C. C., 0.25 C. C. Each dose should preferably be given from 5 to 7 day intervals.

Experience has shown that any treatment other than pre-seasonal is not satisfactory. The treatment should be stopped 5 to 7 days previous to the onset of symptoms. Co-seasonal treatment is even dangerous, as the dosage cannot be regulated. If good results are to be obtained in the treatment of hay fever, details and accuracy must be given careful attention.

IMPORTANCE OF PROPER FOOD AFTER WEANING*

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I have chosenn this subject because I see the results of improper feeding and malnutrition every day in my practice and because I have observed that children fall off from four to six per cent more below perfection between twelve and twenty-four months of age in far too many instances and as a general rule do not measure up to the same standard of perfection at the end of the second, third and fourth years as the first and I believe it is largely due to the fact that they are treated too much as adults from a feeding standpoint. The recent epidemic of influenza has shown who gets through this debilitating disease in the shortest time and the fewest complications and it is he who is well nourished, robust, of good constitution and of course has pure air twenty-four hours of the day. In the past I have urged fresh air as essential to throwing off disease and still believe that essenntial but proper food should go along about fifty-fifty with this.

We all know that a big per cent of sickness is among the poor and certainly much of this is due to malnutrition which may have extended throughout life. It is not always that they have lacked the quantity or variety of food, either, in many cases, but the right preparation. Food improperly cooked not only is not palatable but may have many essential food elements actually destroyed, aside from its indigestibility, for we know that some destruction occurs with perfect cooking. Up until the last few years we thought we had food analyzed perfectly into proteid, fat and carbohydrate, and when fed those in correct proportions the food question could be dismissed as a

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cause of disease but now we know that food knowledge was painfully short of perfection. The accessory food factors, food hormones or vitamins are just as essential as our proteid, fat and carbohydrate. Infant feeding was taught a few years ago to refer chiefly to those who had to be artificially fed and we thought we had the science down so perfectly that we more readily consented to feeding babies artificially than now. We think we know a great deal now but realize more fully that there is yet much to learn and are more inclined to rely on breast feeding with supervision of the mother.

We eat for bodily repair, heat production and growth and as the latter has only to do with child life he is in a nutritional class of his own and this is exceedingly important because in this period the foundation of life is being laid and if improperly done thorough correction can never be made. If your structure is made from poor material it can never be entirely replaced. You may be able to veneer the imperfect body but it never has the stability of the real thing. When our men were examined for the draft and we found one in four wholly unfit our nation awoke to the fact that something was radically wrong. Early feeding of the right sort will do much to prevent a condition like this. I am discussing the subject of food after weaning but fully realize there is a wide field for discussion in proper nutrition of nursing mothers and that many cases of malnutrition start with breast feeding. But in the average home the nursing baby gets along fairly well. We might say this period of feeding is more or less fool-proof. It is when the baby begins to eat that trouble begins. He thinks he knows what he wants which is all that is before him and that any hour in the day and in most homes he gets what he wants because he is the baby. He is carefully minded away from a hot stove but not so from the food that is perhaps more dangerous. The modern baby shows of our country fairs have shown us much. The one year old babies may run from 96 to 98 per cent perfect and in fact usually run quite high but when the same ones come back at the end of the second year they drop to 90 or 92 per cent. This certainly indicates that intelligence is not used in feeding causing a period of stunting which must be later overcome to get back near perfection. Breeders of blooded stock know that the young must never have a period of stunting if they would raise prize winners which means perfect stock. Undoubtedly the same rule should apply to the young human. It is because of this that I am calling your attention as physicians to the feeding problem. Among all your families you have some opportunity to advise on the food question and when it comes you should be prepared to discuss the subject intelligently and give some real advice. Of course we have learned to give real diet lists for diabetes, nephritis and a little more vague for tuberculosis and then the average physicians is about through. But why not prevent other things by giving the right food at the right time correctly prepared? It is easy to do if we try. Undoubtedly all diseases are brought on more or less by an imperfect makeup or combination of elements of the body. We do not need to try to divide the foods as we would the dosage of drugs but give general directions for the varieties so that there is a certainty of nature picking up what is needed here and there to weld into a perfect mechanism. We must be able to give general directions for the proper varieties of foods and their preparation and at least urge the mothers to rotate their foods and manner of cooking because in feeding little ones we may have the right elements chemically and "vitaminly," if you please, and then fall down on account of the revolt of these little ones at the monotony. But in the real malnourished cases we should give written directions for the foods or we may fail on account of the shortcoming of the mother or her laxity in carrying out instructions. Written directions, like medicine, are more likely to be followed than advice. We should find out what our little patients are eating and then be able to add what else is needed, and especially must we become familiar with vegetables and their correct preparation for food. The difference between the bloom of health and the pallor of malnutrition in children is the difference between milk and green vegetables and their absence, or even scantiness in the dietary; and, green foods can be fed to year old babies such as asparagus tips, spinach, young green peas and green beans. An eminent and reliable authority has stated that a bushel of grain has five times as much food value as the meat and milk that can be produced from it and of course this is true of vegetables. Therefore, from an economic standpoint we must stress the foods other than meat even if we must, and should, continue to urge milk drinking. All experiments show that the most efficient foods are cereals supplemented by milk and green vegetables. During the year of severe food regulation in Denmark or during the late war the death rate dropped 34

per cent which shows that scientnific feeding pays and if this is true of the whole population it is more useful as applied to children and the physician is the one to have it applied.

If we see that our little patients get a variety of foods correctly prepared we are laying the foundation for future good health since food habits, likes and dislikes are usually continued throughout life. Most of us follow our appetites and if they are trained correctly while young we are most likely to continue to keep them right through life. We all understand that mental training in the young must be right for a future good citizen. But before we train we, by all means, must build something to train. It is certainly true that mentality is affected by diet. Surely the brain requires as pure food and the many different elements for its proper deevlopment as the body. Pure, red, oxygenated and vitamined blood must flow through the growing brain to enable it to develop to its fullest capacity. When we speak of malnutrition we must realize that it applies to the whole, including body, mind and perhaps spirit. Malnutrition is present in no less than 20 per cent of our population of children, some experts say more, and this is general and not just in the slums. The farm babies are malnourished in many cases worse than in the small towns and cities and yet they have food possibilities all around them. I see many homes where the children drink coffee and the family income is largely derived from the sale of milk to creameries and these children get what they want, too. Our country of wealth, abundance, food going to waste, not enough markets for the surplus and yet 20 per cent of the children suffering from malnutrition! Talk about teaching pure Americanism, patriotism and preparation for national defense, what more can we do than to open the eyes of our mothers so that they can raise real men and women instead of future citizens who are about 25 per cent below normal .

We pride ourselves on being able to make early diagnoses in what we term the deficiency diseases such as scurvy, rickets, pellagra and beri-beri. If this is what these diseses or conditions are undoubtedly they start long before anybody can classify them. Pellagra sometimes apparently begins as early as the second year and this is reasonable for it shows up clearly in later life as a result of improper diet and it surely begun with the beginning of improper food which is usually after weaning. We are frequently consulted, too, in cases of this sort and then is our chance to lay before the parents the possibilities and then cure, not prevent, because something certainly is the matter. If we outline a proper general diet and its preparation we will cure whatever is present and the actual diagnosis is unimportant. If we handle these problems with a certainty born of knowledge of our business it means just as many and better fees than we have been getting and we are in the profession for a living wage at least. But further than that we all like to do something worth while and what more can we do than to lay the foundation for national good health?

We are called on to treat children subject to chronic colds at an early age. We perhaps find beginning enlargement of tonsils and adenoids, then give tonics and advice about fresh air but I do not believe we go into the food question very thoroughly. We probably say the child is a little young for operation for removal of these defects. If he is too young he is young enough for these defects to be largely cured, or overcome by a well ordered existence which includes a balanced diet. We understand that future tuberculosis has its inception in diseased noses, throats and mouths and if this is true the conquest of this plague will be hastened by proper management and feeding of little ones. No doubt all our disease plagues are largely due to early constitutional deficiencies. If a child does contract the many infectious diseases that appear to be inevitable he will go through them with the minimum amount of harm if he has a good foundation of health and many infectious diseases that we do not consider inevitable will miss him altogether. Other conditions that take their toll in ill-health and death such as appendicitis, cholecystitis, and hemorrhoids are undoubtedly due in many instances to improper early feeding. But by all means let us conquer the deficiency diseases by prescribing the proper food and I mean conquer them when we are not able to recognize them for they certainly begin on a small scale long before any positive evidence is present. We frequently hear someone say he is about "half sick" or "feels like thirty cents" and it may be he about "half has pellagra" or is about thirty per cent on his way to some other malady due to deficiency from bad eating. The little tots do not express their feelings in words but their actions usually are more eloquent and we should not fail to recognize the unspoken expressions.

In conclusion I would impress on you that in proper food after weaning we largely

eliminate malnutrition and its consequent disorders. We help to build good health which means happiness and contentment and this is essential to the prosperity of our country and conducive to the fullest measure of patriotism. Also, through this means we do our part in furthering what has been termed constructive medicine.

Discussion: Dr. H. M. Williams, Oklahoma City, Okla.

The doctor has presented today in his paper a subject of unusual importance, one that has been very much neglected by our profession.

In recent years there has been a great deal written on the subject of infantile feeding, but very little has been written regarding the early childhood life as to proper diet.

"DENNET" boldly makes the statement that fifty per cent of all children's sickness between the ages of one and five years, that present themselves to the physician, their ailments are due to irregularity in diet of some form. The "essayist" has well covered and emphasized the importance of the subject.

It is a well known fact that the farmer knows exactly what the height and weight of his stock should be at the ages of one to three years, to have proper growth and development. The average mother knows how to systematically conduct the everyday household duties, but should you ask either as to what the height and weight of a child should be at the age of three years, it would be surprising how few would be able to answer intelligently. A better knowledge of these facts are therefore important and it is the duty of the family physician to see that the families who are under his care, are in the possession of this knowledge, that the child may have an equal chance for proper development along with the farmer's stock.

The essentials of food are to maintain nutrition and allow growth, it should be digestible, it should contain proper quantities estimated by calories, which is a very simple process and not difficult to understand. The average baby at the age of one, weighs about twenty and one-half pounds and should be about twenty-seven inches in height. This same child will show an increase of an average of two and one-half inches of growth per year, until eight years of age, when the height should be about forty-seven inches, though during the second year this growth is about four inches, inches and so on. The weight of the infant during the third year practically three doubles during the first six months, the weight increases about one-half pound per month, during the second year of life this increase should continue at the rate of one-half pound per month and so on, this condition can be maintained only by feeding proper diet. One of the most common errors is, that the child is not taught soon enough the use of vegetables as a diet. A child should be taught at the age of sixteen months the use of vegetables as outlined by the doctor. We frequently see an undeveloped child that has formed the habit of dirt eating. This is due to not receiving the proper diet which is supplied in vegetables. Children, if taught younger in life the proper method of eating the essential foods, as they grow older, this habit will become a fixed principle in their life. One of the greatest errors that we meet in adult life, is too strong a proteid diet. Another common error in the diet of the child is too frequent feeding. After they have reached the age of sixteen months, there should be no eating between meals other than an occasional glass of milk, for at this age of life the child should be taught the use of vegetables, should be eating eggs and potatoes and allowed meat at least once a day, properly prepared.

It is a very common thing for the physician, when asked by the anxious mother, relative to the child's diet, to emphasize what not to eat, but he fails to submit the list of diets to this mother that would contain the essential elements for proper development of the growing child. More attention should be given this matter of proper food for the child at the weaning period, then there will be fewer undeveloped children at the age of two years or more.

THE DIARRHEAL DISEASES OF INFANTS AND CHILDREN*

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The term diarrhea, of course, includes all conditions attended by frequent, loose evacuations of the bowels. Normally, the character and frequency of the stools depends on several factors. Generally speaking a breast fed baby has three or four movements daily while artificially fed ones do not have more than one or two.

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The mortality from the diarrheal diseases or so-called "summer complaint" has been rather high. Some idea of the importance of this condition can be gained by reference to the following figures, fairly recently compiled. They cover a period of five years and show the mortality from the diarrheal disease in children under two years of age as compared with that from certain infectious diseases in people of all ages in a large city.[1]

Measles, all ages	3,378
Scarlet fever, all ages	4,152
Whooping cough, all ages	2,000
Typhoid fever, all ages	3,523
Diphtheria, all ages	10,277
Total	23,330
Diarrheal Diseases, under two years	26,563

From this it will be seen that more deaths occur in children under two years of age from this cause annually than occur at all ages from five of the most common infectious diseases.

Classification

Probably the best classification up to the present time is that given by Porter and Carter[2]. They divide them into:

(1) Mechanical diarrheas.
(2) Fermentative diarrhea.
(3) Proteolytic diarrhea.
(4) Infectious diarrhea.

Mechanical diarrheas always result from taking of unsuitable food or foreign bodies, such as dirt or paper or from over-feeding. This condition is easily corrected, as a rule, and will not be discussed here.

The proteolytic diarrhea depends on the presence of a proteolyzing organism or substance. It is characterized by foul, yellowish or brownish stools which are alkaline in reaction. The symptoms are much the same as those of the other diarrheas. Obviously the main point in the treatment is the withdrawal of all proteins from the food. The symptoms are treated just as are those of the other types. It will not be discussed in detail.

The two types with which we commonly have to deal are the fermentative diarrhea and the infectious diarrhea. These will be discussed a little more in detail. Fundamentally, the difference between the two types is this: Fermentative diarrhea is a condition in which fermentation takes place in the intestines due to an abnormal growth and development of organisms in the intestinal contents. In other words, it is an infection of the intestinal contents and not of the intestinal wall. In infectious diarrhea there is a definite infection which attacks the intestinal wall and produces distinct lesions there, rather than attacking the intestinal contents. In the fermentative type, definite pathological changes are slight or absent. In the infectious type, well defined lesions are usually present at autopsy. These are usually found in the colon and lower portion of the ileum and vary from a simple catarrhal inflammation in the mildest cases to a condition of extensive ulceration.

Practically the same conditions predispose to both types. Everything that lowers the general vitality and resistance is a predisposing cause, such as chronic indigestion, rickets, marasmus, teething, etc. They are seen mostly in children under two years of age and during the hot summer months. About 95 per cent of the severe cases are in artificially fed babies. Poverty, overcrowding, bad food, neglect and poor hygiene have a large share in the responsibility.

As to the exciting cause. That of the fermentative type has not been well worked out. There seems to be a great deal of evidence that the bacillus perfringens of Tissier is responsible in a great many cases. It is probable that the condition is caused largely by an abnormal activity of certain fermenting bacteria that are normally present in the intestinal tract.

The exciting cause of the infectious diarrhea is better understood. The dysentery bacillus, in its various strains, has been definitely identified as an etiological factor. The gas bacillus has been found present in great numbers in some epidemics. And there is evidence that the streptococcus and the bacillus pyocyaneous sometimes are responsible. Whatever the causative agent is, it is very likely that it enters the alimentary tract through the medium of contaminated food, especially milk, or through water or is taken into the mouth by the hands or any other object which the child may put into its mouth. And it is also quite possible that infection takes place only in those cases where the resistance of the alimentary tract against such infections has been lowered by a derangement of digestion due to extremely hot weather, lack of cleanliness, or injestion of improper food, etc. While essentially hot weather diseases, a few cases are seen all the year round. In this climate they seem to be more noticeable during the months of July and August.

SYMPTOMS

In both types the onset is usually rather

sudden. As a rule, the first thing noticed is the diarrhea. The stools are anywhere from ten to twenty-four or more daily. There is, in most instances, some elevation of temperature, the degree depending on the amount of toxic absorption. It ranges anywhere from 101 to 104 or 105. In the fermentative type it is apt to be higher for four or five days and then drop. In the infectious type it is rarely higher than 101 or 102 but keeps up with little variation as long as the infection is active which may be for a period of weeks. Vomiting is not common in either type and when present is due to the toxemia. There is a loss of appetite and the aversion to food is so great at times that it is difficult to give any form of nourishment. There is a moderate leucocytosis, usually around 20,000, with an increase in the polymorphonuclear leucocytes. The urine of course is diminished.

In the fermentative type the abdomen is often distended. There is not a great deal of abdominal pain, tenesmus or tenderness. The stools are greenish, watery, strongly acid in reaction and odor, and irritating to the skin. They contain much mucus, may be frothy and contain small, soft, fat curds.

In the infectious type, due to the intestinal lesions, the stools show the presence of mucus and blood quite early and in a day or two are made up mostly of this. Pus may be present macroscopically and is always present microscopically. The stools are either odorless or have the smell of wet hay. They are nearly always alkaline in reaction. There is a great deal of pain in the abdomen and the tenesmus is quite intense. Prolapse of the rectum, resulting from the forcible straining, is not uncommon. The abdomen, instead of being distended, as in the other type, is more often soft and sunken. There may be some tenderness along the colon.

In both types, there is usually a rapid loss of fluids on account of the frequent bowel movements and there often develops quite a marked condition of dehydration and acidosis.

The main points of differentiation between the two conditions then, are:

(1) Fermentative diarrhea is simply a fermentation of the intestinal contents with no invasion of the intestinal mucosa by the organisms. Infectious diarrhea is a definite bacterial invasion of the intestinal walls and other body tissues.

(2) In fermentative diarrhea the temperature is apt to be higher with a drop at the end of four or five days. In the infectious type the temperature is not high but runs a steady course for a period of several days or weeks.

(3) In the fermentative type the abdomen is commonly distended, but there is little abdominal pain or tenesmus. In the infectious type the abdomen is usually flat or sunken, there is a great deal of abdominal pain and tenesmus and may be some tenderness to pressure.

(4) The character of the stools is different—in the fermentative type there is a green, watery, irritating stool, acid to litmus and it may show small gas bubbles. The infectious type of stool is characterized by the presence of pus and blood, very little odor and an alkaline reaction.

The laboratory differentiation will not be taken up as it is not always possible or practical to carry it out.

Prognosis

In cases of fermentative diarrhea, which show marked toxemia, the outlook is always grave. If they get through the first four or five days their chances of recovery are good.

In the infectious type, the prognosis should always be guarded. It is impossible to tell what the outcome is going to be. Most of the deaths occur during the second week. Some recover from the immediate attack but linger along and die at the end of two or three months from malnutrition.

Treatment

Discussing the treatment consists of discussing the following points:

(1) The initial purgation.

(2) The period of starvation.

(3) The proper diet.

(4) How best to control the temperature, toxemia, dehydration and acidosis.

(5) Drugs.

The treatment of both conditions is almost the same, except as to diet. This will be taken up in some detail. Taking up the different measures in their order:

The Initial Purgation.

The first thing to do is to clean out the alimentary tract thoroughly. Castor oil in doses ranging from two teaspoonsful to two tablespoonsful, depending on the age of the child, should be employed. If this cannot be retained, the next best thing is calomel in doses of one tenth grain each with one grain of bicarbonate of soda given every half hour till one grain is given. This should be followed in two or three hours

after the last dose with two or three teaspoonsful of milk of magnesia.

The period starvation.

No food should be given, as a rule, for twenty-four hours. It is not desirable to starve them any longer than this. During this time it is important to see that the child gets at least as much fluids as it would normally take, which is about three ounces per pound of body weight each twenty-four hours during the first year and about two ounces per pound during the second year. This can be given in the form of plain water, barley water or weak tea. Personally, I prefer barley water, sweetened with saccharin.

The diet.

This is probably the most important part of the treatment and its character depends on the type of diarrhea. The average case should receive some form of food after twenty-four hours of starvation.

In the fermentative type, where we have the greenish, watery, highly acid, fermenting stool, there is a distinct indication for a certain type of food. The organisms that seem to be responsible for the trouble here thrive on a carbohydrate medium. Wherever there is an excessive amount of fermentation of carbohydrates, there is apt to be some breaking down of the fats as well. So the indication is for a food that is high in protein and low in both fats and carbohydrates. The ideal food here is protein milk made from skimmed milk. If sweetened with saccharin, this is usually well taken—using one grain of saccharin to each quart. It should be given in small quantities at first—say half an ounce per pound of body weight each twenty-four hours, the first day and this gradually raised until it is given diluted with one third of water or in full strength in amounts equivalent to what the child would ordinarily take of a formula. In two or three days, when the condition has improved as evidenced by fewer bowel movements and a difference in their character, sugar in the form of dextri-maltose is gradually added. The child can be kept on this for quite a while. As soon as the bowel movements become reduced to five or six daily the protein milk should be gradually replaced by boiled skimmed milk. The fats should be withheld for weeks afterwards, as they do not seem to tolerate them well. Next to protein milk comes lactic acid milk as a diet, and if neither of these can be had, boiled skimmed milk may be used cautiously.

As to the infectious type, Morse and his associates seem to have arrived at the most logical solution[3]. We are dealing, in most cases, with the dysentery group of organisms. These have been found to grow on either carbohydrate or protein media. Growing on protein media they produce toxic substances. On carbohydrate media they produce harmless products. Both media being present the carbohydrates are acted upon before the proteins are attacked. So the indications are for a food containing mostly carbohydrates and very little or no fats or proteins (the fats are never well born). So these cases should be put on a sugar solution. Lactose is the sugar of choice because it is more slowly broken down and furnishes a carbohydrate medium for a longer time. It should be used in a five to seven per cent solution. In from one to three days this is made up in barley water. In from one to five days more, depending on the symptoms and amount of improvement, small amounts of boiled, skimmed milk are added. This is cautiously raised until it is given in amounts equivalent to what the child would ordinarily take—the amount of sugar being properly adjusted. The fats are withheld until all symptoms are gone and then are very cautiously added. In those cases where the gas bacillus is the cause, there will be evidences of marked distention, etc. Here, of course, the same diet is used as in the fermentative type.

No matter what the indications are, if a diet does not seem to agree, this should be discontinued and something else tried.

As to the temperature, toxemia, dehydration and acidosis. The one indication here is for plenty of fluids. They take fluids poorly and lose them rapidly through the frequent loose bowel movements. As shown by Marriott, Schloss, Reiss and others, there is an increase in the blood concentration, the kidneys do not eliminate properly, the acid base balance is not properly regulated and the result is a condition of dehydration, toxemia and acidosis. Fluids can be given by mouth, subcutaneously, intraperitoneally and intravenously. In the mild cases we can usually give enough fluids by mouth. In the cases that show a marked dehydration, it is usually necessary to give them by some other way. For this purpose normal saline is employed subcutaneously or intraperitoneally. In extreme cases it may be necessary to give fluids intravenously. Here a 10 per cent solution of glucose is used. As pointed out by Schloss[4] a hypertonic solution should never

be given into the vein until a certain amount of an isotonic solution has been given into the tissues.

Drugs play a very small part in the treatment except for the initial purgation. Hot stupes to the abdomen may help control the pain and tenesmus. Opium in the form of paregoric may be given to control the tenesmus and straining only after the toxic state has subsided. It is doubtful if bismuth does any good and it may do harm. At times stimulants are necessary, adrenalin and caffeine may be used.

The serum treatment has not met with a great deal of success up to the present time.

1. Diseases of Infancy and Childhood—Holt and Howland.
2. Management of the Sick Infant—Porter and Carter.
4. Diseases of Nutrition and Infant Feeding—Morse and Talbot.
4. Schloss, Oscar M., The Treatment of Dehydration in Infants. The Boston Medical and Surgical Journal 187-427 (Sept. 21, 1922).

PREVENTION OF DISEASES IN INFANCY AND EARLY CHIDHOOD*

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In presenting this subject, it is well that we begin with the prenatal care of the mother as the health of the pregnant woman has much influence on the health of the expected child. These mothers should have a rigid physical examination during the second month of pregnancy, followed by frequent observations and examinations during term. If this could be done in all cases, much would be accomplished to reduce the mortality in early child life.

In the new born, the one great outstanding cause of death is cerebral injury. In the past, these deaths were listed as congenital debility and in other indefinite terms, but now, from post mortem findings, it is stated that as high as 50 per cent of these deaths are due to some traumatic lesions or a hemorrhagic diathesis. Hemorrhage of the brain occurs in a large proportion of births but many cases are so slight that symptoms are not produced and a spontaneous recovery takes place. Indefinite symptoms in some cases may be produced and only after a very careful examination, a diagnosis can be made. Continued cyanosis and difficult breathing without heart or lung findings are very suspicious signs while convulsions or even slight twitchings point the way to an investigation, and a bulging fontanel is a very important symptom. Ehrenfest gives the following causes of these intra-cranial lesions:

(1) They are produced by the mechanical exaggeration of the physiologic process of molding, resulting in excessive or sudden compression of the fetal skull.

(2) They are prone to occur in the course of a normal labor if prematurity predisposes the infant to traumatic lesions.

(3) They are necessarily aggravated by a hemorrhagic diathesis or by inapproapriate manipulation during resuscitation. The condition of the newborn that survives these brain injuries is not recognized until the babe is three or four months old when the child is brought to you with spastic paralysis. At least six cases have come under my observation during the past year and all were children of primiparas and with histories of spontaneous deliveries. All of these cases were from the rural district, two having no doctor in attendance and two were given pituitary extract, but all gave histories of the bearing down and pulling on sheets early in labor which forced the head against and through an incompletely dilated cervix or through a rigid vulval ring. We find much of this practice in private homes and it should be discouraged until we get complete dilitation. Large doses of pituitary extract endanger the child, especially when it is employed to overcome mechanical difficulties, while if less or none were given in the first stage and more scopolamin were used at this time to produce relaxation and sleep between pains, traumatic birth injuries would be greatly reduced. Whenever such an injury is suspected, the clotting time of the infant's blood should be ascertained and a spinal puncture made, the first as a diagnostic means and the latter as a diagnostic and early therapeutic measure.

Nutrition of the newborn is as important as later in childhood and this is where most mistakes are made. It is not an uncommon thing to find the baby taken from the breast following a hasty decision that the mother's milk does not agree with the child or that she has insufficient quantity to nurse him. Ninety-five per cent of the mothers can nurse their babies altogether, or partially, for at least six months. Some mothers have better and richer milk than others but on the whole, it is good and we have come to discard such a thing as poor breast milk.

*Read before Section on Pediatrics and Obstetrics, Oklahoma State Medical Association, Tulsa, Oklahoma, May 15-17, 1923.

Milk analysis gives us no important information and need not be made except in rare cases, but the weight curve is the best indicator of the quality and quantity of breast milk. If the babe does not gain as much as six ounces per week on the breast, we are justified in additional feeding after each breast feeding with some form of modified milk. Sixty per cent of deaths in the first year of life are due to nutritional disturbances and improper feeding. An exception to the rule of breast feeding is indicated when the mother has some incurable disease, exposing the baby to the same diseases, as in active pulmonary tuberculosis or of other diseases of the mother, causing rapid progressive wasting.

Sepsis is the most common infection of the newborn; pyelitis, meningitis, tetanus and pneumonia sometimes occur; and the acute contagious diseases are more rare at this time of life.

The causes of death each year after the first are different. So it will be well to take them up with the mortality at the various ages. Intestinal disturbances are still the cause of over one-fourth of deaths during the second year. This is due to the variety of food that the child is eating at this time, some of which should not be given and some that is not properly prepared, resulting in acute alimentary intoxication or an infectious type of diarrhea. The blood of these infants is concentrated by water loss and the failure of renal function is the result of excessive water loss from the body by the way of the bowels. This waste is sometimes so great that recovery is impossible as sufficient water cannot be given by mouth to combat the severe degree of anhydremia caused by vomiting, diarrhea and evaporation, resulting from increased protein metabolism. Normal saline or "Ringer's Solution" by the way of the peritoneal cavity, is advised and many cases of diarrhea could be saved if this method of introducing fluids were used before anhydremia developed.

Next in importance are the respiratory diseases which are responsible for 26.4 per cent of deaths during the second year of life. By educating the mother in the proper ventilation of the sleeping room and the home, and in keeping her babes from public places, mortality can be greatly reduced. The child is free from tuberculosis at birth and infection is not likely to take place until about the third year, unless there is an open case in the same house. If this is the condition, infection is likely to follow in the form of T. B. meningitis, which is acute and rapidly fatal. During the first three years of life, the child should be guarded against contact with tuberculosis because of the great danger of immediate development at that age.

The epidemic diseases with diphtheria in the lead, are responsible for one-fourth of the deaths during the third year of life and for one-third during the fourth year, with diphtheria then causing one-sixth of the deaths. In the fifth year, we find the mortality rate due to these diseases greatly on the decline and the appearance of their sequelae, acute rheumatism and acute endocarditis, organic diseases of the heart, acute nephritis and Bright's disease. Heart disease occurs in one in every fifty of our population and the causes are infectious diseases, intoxications and improper methods of living.

The death rate of whooping cough is second to diphtheria and the younger the child, the higher the mortality. As yet, the prophylaxis is not fully established, though some claim very good results from fresh vaccine for a prophylactic measure as well as a curative. The same results are not obtained in all cases, but I am sure that you get results in some and feel that it should be used in connection with the ether treatment. The ether, about 1 c.c. for a child two years old, is injected intra-muscularly in the gluteal region and may be given every third day. Very good results from this treatment are reported and it should be used with children having severe paroxysms.

Measles. 10,442 deaths are due to this diseases each year and at this time we have no prophylactic serum for general use though prophylactic injections of convalescents' serum is being used for institutional work with very good results. It should be used as soon as possible after the beginning of the incubation period and it should also be used in hospitals to control epidemics and to protect patients who, by mistake, have been sent to the ward where measles is being treated. In certain cases in private work, the age or weakened condition of the child exposed to the infection, may make this treatment advisable. No conclusive results have been obtained by the workers with this serum when it has been used for therapeutic purposes during the course of the disease. The weak, sickly and tubercular children should always be shielded and isolation should be in the prodromal stage as it is too late when the eruption appears. Disinfection of the rooms is superfluous as a room occupied by a

measles patient, with no danger, may be turned over to a person who has not had the disease.

The death rate for scarlet fever for all ages is 3,124 and it occurs most frequently in children between the ages of 3 and 6 years, but is not uncommon up to the twentieth and thirtieth years. Prophylaxis depends upon the strict isolation of the patient until complete desquamation or all the complications are cured and a thorough disinfection of room and contents is made. Convalescent serum has been used in the early toxic cases with very encouraging results. Serum of fresh whole blood is obtained from patients who are two or three weeks convalescent. At the present time we have no serum for general use for measles or scarlet fever and to reduce the prevalence of these diseases, we must assist in educating the public in the real nature of disease transmission, in the prompt report to the health authorities and in efficient isolation.

The death rate for diphtheria for all ages is 12,442 and under five years is 7,442. In the prevention of diphtheria we have two of the most efficient measures known at the present time to the medical profession. The Schick test determines liability to the disease and toxin-antitoxin gives a protection to those who are liable.

Studies which were carried on by the New York Department of Health show that susceptibility to diphtheria is present in about the following proportions:

Under three months	15 per cent
Three to six months	30 per cent
Six months to one year	60 per cent
One to two years	70 per cent
Two to three years	60 per cent
Three to five years	40 per cent
Five to ten years	30 per cent
Ten to twenty years	20 per cent
Over twenty years	12 per cent

We see that children under six years are more susceptible. This is the pre-school age and includes children from six months up to school age. But at this time it is advised that the Schick should not be done and that the children should be given the active immunization with toxin-antitoxin which gives immunity of 97 per cent and lasts for years and perhaps for life.

We, as physicians, should realize the responsibility and opportunity given us each day to help educate the public to obviate these infectious diseases which kill so many of our little children or leave them with some organic disease which impairs them in later life for usefulness to themselves and to the community in which they live.

CONGENITAL CLUB FOOT*

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The cause of this classical congenital deformity has been subject to much controversy among physicians all through the ages and is still an unsettled question. It would be impossible in the time alloted to go into detail on this subject, so that, since this paper is presented before the section on pediatrics and obstetrics, it seems expedient to limit discussion to the interesting phases of etiology and stress only the main points in the treatment of the condition.

Statistics usually quoted are those obtained from the records of large hospitals, but I thought that it might be of some interest to investigate the experience of the man in general practice regarding this deformity. Questionaires were sent to fifty Oklahoma physicians known to have been in general practice for a great number of years, and out of the information rendered by twenty-three who replied, the following statistics were tabulated.

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*Read before the Section on Pediatrics and Obstetrics, Oklahoma State Medical Association, Tulsa, May 15, 16, 17, 1923.

Physician	Years in Practice	Cases Delivered	Double	Other Deformities Present	Received Treatment	Known Cured	Relapsed	Cause
Dr. Davis Canute	27	None						
Dr. Phillips Picher	33	2	1	None	Not Known			Not Exp.
Dr. Collins Panama	25	2	2	None	1st Year	1	1	
Dr. Holbrook Perkins	22 (1300 cases)	4	None	None	2nd Year	2		
Dr. Hatfield Mulhall	36	None						
Dr. Lynde Okarche	42	None						
Dr. Barnett Hitchcock	26	3	2	1	1-12 mos.	1		Deficient liquor am.
Dr. Wolff Waukomis	25	1	1.	None	6 mos.	1		
Dr. Stone Edmond	25	None						
Dr. Haywood Wagoner	42	None						
Dr. Childers Mulhall	32	3	1	1 still born	1	1		
Dr. Settle Wynnewood	28	1		1 still born	None			
Dr. Sharp Orlando	19	5	4	None	early	4	1	
Dr. Beach Glencoe	33	2	None	None	splints	2		
Dr. Connor Coalgate	41	6	2	3	2 mos.	3	3	Maternal Impression
Dr. Johnson Pauls Valley	18	2	1	None	Not known			Puerp. Eclampsia
Dr. Buchanan Watonga	15	2	None		Died			
Dr. Strother Nowata	55	1	None		Early			
Dr. Lehew Pawnee	25	8	None		No Record			
Dr. Workman Woodward	43 (2500 cases)	3	2	1	No Record			
Dr. Worthington Miami	21	6	2	4	Early	2		Deficient Liquor am.
Dr. Gohen Lehigh	31	None						
Dr. Voyees Gotebo	40	1			3rd year			
TOTAL		52	18	11		17		

In summing up this information, we find that eighteen physicians in practice over twenty-five years have delivered a total of only thirty-three cases, an average of about two cases each during this period.

Case 1 Fig. 1
H. B. Age 3 weeks before treatment.

Three who have practiced forty years or more have delivered no cases. Six have delivered none in thirty years. One doctor delivered only one case in fifty-five years and states that he has always had a big practice.

It will be noticed that only eighteen of the total fifty-two cases are known to have received treatment.

Other deformities were present in one-fifth of the cases, monstrosity and still births being complications most frequently mentioned. No particular cause seems to have impressed itself upon any physician.

ETIOLOGY

Various theories which have been advanced to explain the cause of congenital club-foot are:

1. That it is due to an external force in utero, a so-called mechanical theory.
2. That it is an intrinsic affair, i. e., an error in the embryonic rudiment.
3. That it is an affectation of the muscles or nerves through the central nervous system.
4. That it is due to a hereditary trait.

Case 1 Fig. 2
Age 14 mos. showing braces applied to prevent relapse.

Frankel (Zeit. fur Orth. Chir. 1913. Bd. XXXII) puts the etiology in a little different manner. He has frequently found a history of an unusual difference in size between mother and father, of a placenta previa, tumors, previous operations for retrofixation, unusual position at birth and twisting of the cord.

With these theories in mind, special data was obtained in twenty consecutive personal cases and may be tabulated as follows:

			Single Double	Father's Weight	Mother's Weight	Age of Mother	Age of Father	Hgt. of Mother	Hgt. of Father	No. of Children
1.	S. T.	m	s	170	220	20	37	5–7	5–8	1st.
2.	S. N.	m	s	150	90	25	28	5	5–8	1st.
3.	B. U.	m	d	150	126	27	27	5–6	6	1st.
4.	G. O.	m	d	180	138	28	27	5–6	5–11	1st.
5.	G. O.	m	s	180	138	28	27	5–6	5–11	2nd.
6.	W. E.	m	s	160	135	28	32	5–5	5–8	3rd.
7.	N. E.	m	s	148	128	27	29	5–4	5–10	4th.
8.	B. U.	m	s	140	120	31	42	5–4	5–10	4th.
9.	A. D.	m	s	190	135	32	35	5–6	5–11	1st.
10.	M. C.	m	s	175	145	34	35	5–7	6–2	1st.
11.	A. C.	m	s		115	35		5–3		1st.
12.	W. I.	m	s	140	120	38	40	5–3	5–2	1st.
13.	H. O.	m	d	175	120	30	31	5–2	5–9	1st.
14.	A. S.	m	s	140	122	31	35	5–4	5–6	5th.
15.	B. U.	f	d	185	113	34	35	5–5	5–10	2nd.
16.	T. H.	m	d	140	123	22	25	5–3	5–8	1st.
17.	M. O.	m	s	135	145	24	26	5–4	5–6	3rd.
18.	M. U.	m	s	160	130	46	54	5–7	5–11	6th.
19.	C. O.	m	s	170	110	20	23	5–4	6	1st.
20.	C. R.	m	s	140	125	34	38	5–4	5–7	8th.

These statistics, while not sufficiently great to draw any definite conclusions, bring out some interesting facts which are worthy of study.

1. It is a striking fact that eleven out of the twenty cases were the first born and ten of these were the only child.

2. Where the number of cases are multiple to one mother they are consecutive, deformity occurring first in the first child. In case number 17 M. O. the first three

Case 1 Fig. 3
H. B. Age 2½ yrs. Note complete correction.

children had an equino-varus deformity of one foot, but not the same foot each time. The fourth child of the same mother is normal. Case number 4 and 5, G. O. were first and second children, one being double, the other single.

3. Another striking feature is that all except one are boys. Fifteen are single and five double.

4. In only one case was there a history

Case 2 Fig. 1
J. K. Age 16 days before treatment.

of hereditary tendency. The same deformity occurred in a cousin of the case number 14 A. S.

5. The height and weight is only average in all cases. There was no other malformation present in these cases.

It is difficult to explain just why so many cases are the first born. Perhaps this is indicative of the extrinsic or mechanical theory. This theory has had the greater share of advocates since the time of Hippocrates. It is said that Ambrose Pare supported this view and described it as due to the mother sitting too much with her legs crossed. Constriction by amniotic bands, deficient liquor amnii, pressure of the uterine wall on fetus in abnormal position, action of the umbilical cord, and retarded rotation of attitude of foetus during gestation subjecting feet to pressure are the various forms of external force which may cause a mechanical change in the foot.

Case 2 Fig. 2
J. K. Age 2 mos. Showing early over-correction in plaster.

It is reasonable to believe in this theory because we know that deformity of the foot may be acquired in later life, due to changes of mechanical nature.

The mechanical theory, however, does not well explain all cases. Club-feet have been found in extra-uterine foetation and in a case of ruptured tubal gestation. The table of statistics obtained from physicians shows that other deformities occurred in thirteen out of the fifty-one cases. It is well known that club-hands, cleft palate and hare-lip are frequently associated with club-foot. In these cases we may ask if mechanical constriction is a coincidence, or is the deformity of the foot due to a developmental error of the primitive ray.

We also find club-foot in many cases of spina bifida, hydrocephalus, and ana-cephalus. Again we ask, in these cases, is it

due entirely to the disturbance in the nervous element or is it a mere coincindence?

In diseases of musculo-nervous origin, such as spastic paralysis , and the muscular dystrophies, we have seen the feet gradually acquire the equino-varus deformity. It is difficult in these cases to say how much influence the nervous disturbance has. A more clearly mechanical demonstration is seen in the infantile paralysis type of club-foot.

PATHOLOGY

It has been emphasized many times by various authors that one who treats club-

Case 2, Fig. 3
J. K. Age 5 mos. shows over-correction complete. The result of early treatment.

foot should be thoroughly acquainted with the pathology. It will be sufficient here to mention only the main points in the pathological structure.

1. The varus deformity is due to displacement of the scaphoid and cuboid inwards at the mid-tarsal joint with a rotation of the os calcis which brings its anterior extremity downwards and inwards.

2. The equinus is due to plantar flexion of the ankle joint and a displacement of the scaphoid downwards in its relaxation to the astragulus.

TREATMENT

The slogan in the treatment of congenital club-feet should be "Treat it early and don't quit too soon".

There seems to be a general impression that treatment cannot be undertaken until the child is several months old.

If we abide by Wolff's law this opinion

Case 3 Fig. 1
H. G. Age 4 before operation.

is incorrect. Julius Wolff gave us a law, the substance of which briefly stated is; that form is the outcome of function; that is, through a continuous or sufficiently frequent performance of function in a given

Case 3 Fig. 2
T. G. Age 5, brother of H. G. Before operation. These feet were corrected by tenotomy at age 3 mos., but neglect of after care caused relapse.

position a corresponding structural change takes place.

On this theory one is assured then that

if correction is begun early and foot fixed for a sufficient length of time in the over-corrected position and made to function in this position, a complete cure will be effected.

Therefore, the time to begin treatment of this condition is the **day the child is born.** The foot is so pliable at birth that club-foot is often overlooked for the first two or three days. Development of strength in the new born is rapid and the shortened group of muscles soon overcomes the opposing group and thus the tissues are fixed in permanent deformity.

The first thing to do is to manipulate the foot or feet three times daily forcing them

Case 3 Fig. 3
H. G. and T. G. One year later.

toward the over-correct position. Side splints, well padded, may be used to advantage in retaining the foot in position.

Plaster may be applied as early as the first week, if sterilized white flannel and specially prepared two in. crinoline plaster bandages are used. But in general practice, plaster casts applied this early are apt to cause trouble unless the operator is especially prepared for such work.

Gradual correction by means of manipulation and successive plaster casts without anaesthesia may be undertaken any time up to six months.

If treatment is not begun until the sixth month, it is best to do the correction in from two to three sittings and employ an anaesthetic each time, maintaining the correction in plaster between operations.

In case the patient is from a great distance or the parents refuse to subject the child to several anaesthesias, then tenotomy and full over-correction at one sitting may be done. While in my experience tenotomy has produced no damage, yet it seems reasonable to believe that a stronger foot and better function will be the result if tissues are left intact and gradually forced into correction.

Whatever method employed, in the early treatment, over-correction should be maintained until two or three months after the child is walking. By over-correction, I mean that the dorsum of the foot almost touches the tibia. If the feet are not in over-correction when the child begins to walk braces should not be relied upon to obtain further correction. Manipulation and tenotomy under ether is the only sure way of gaining over-correction.

Application of proper braces is a very important feature, however, but their purpose is to prevent varus and equinus from re-occurring, and not to correct it. In some cases which have responded quickly in the early months, braces may not be necessary. Correction can be maintained by adhesive plaster until the child learns to walk then the sole of the shoes may be raised one-half inch higher on the outer border.

In conclusion let me emphasize three points.

1. Begin treatment early.
2. Don't quit until foot is fully over-corrected.
3. Maintain correction until it is certain deformity has lost its tendency to recur.

PROCEEDINGS OF THE UNIVERSITY HOSPITAL CLINICAL SOCIETY

Oklahoma City, Okla.

Dr. E. S. Ferguson: A Case of Melanoblastoma of the Conjuctiva and Cervical Gland.

Patient is a male 63 years old, whose occupation is a farmer. His past history and family history are negative.

He has had a hard, firm, round tumor mass, not painful or tender, of three years duration, about the size of a walnut, below the angle of the left mandible.

Patient entered hospital from Dispensary 2-27-23 with a chief complaint of tumor growth on lower left conjunctiva. The present illness started about two years ago with a small growth on the left lower con-

junctiva. This was removed but started to grow again almost immediately. It was again removed about six months later. It began to grow again and became steadily larger. However, it caused patient no pain or discomfort until about three weeks ago, when he said that his afflicted eye felt as if it had a foreign body of some kind in it. The patient experienced a sense of discomfort and irritation about the eye accompanied by a serous lachrymal discharge. There were no visual disturbances.

In addition to the actual pathology found patient presented some neuropathic, such as irritability, increased nervousness, and forgetfulness. He thinks his arm is paralyzed, and that everyone is trying to deceive him. He is very slow in answering questions.

Urinalysis is negative. W. B. C. 7,950; 69 polys; 26 small lymphocytes; and a one plus Wassermann with a cholestrin antigen.

Patient was operated 2-28-23 with a tentative diagnosis of Melanotic Sarcoma of the left lower conjunctiva. Incision was made completely around the tumor in the conjunctiva and the tumor dissected loose with scissors. Growth was not densely attached. There was no scleral involvement, and very little bleeding. Operation was done under local anaesthetic. A dark tumor mass was found on the lower left conjunctiva, apparently freely supplied with blood vessels, about one-eighth of an inch in diameter and a quarter of an inch in length, bean or cylinder shaped. The tissue report on this growth is Glio-Melanoblastoma, (by Dr. Turley), which belongs to the carcinoma series. Dr. Roland saw patient in consultation and advised the use of radium post-operative followed by X-ray, which procedure was followed out.

A gland before described was removed from the region of the lower left mandible 3-7-23. This was sent to the tissue laboratory and a similar report returned as on that from the eye, with the suggestion that this was probably a metastasis from the eye.

Patient was discharged in good general condition after an uneventful post-operative history.

Dr. Lain: This patient was seen by myself after a diagnosis had been fully completed. Doctor Roland informed me that he plainly told the consultants that the case appeared as hopeless, only for the reason that the patient urged that something be done he advised radio-therapy with a faint hope that at least the patient's life might be prolonged.

Our experience with radio-therapy treatment in melanomas has not been satisfactory except in the epithelial or carcinoma type. Personally, in all my experience, I have never known a well developed case of melano-sarcoma to recover. Only three or four cases of the melano epithelioma which I can now recall have made complete recovery. Each of these cases were diagnosed and treated in their earliest stage of development.

One, a case of melano in the center of the back had previousnly been operated upon with a prompt recurrence. This case was treated with heavy radium and x-ray and has now been well for more than three years.

Another, a case of melano epithelioma upon the scalp which had also been operated upon with a recurrence, has been treated at various times with radium during the past thirty months. This case is also apparently well at the present time excepting for a small ulcer which was located at a point where sloughing took place.

Another was a former professor in our University with a melano upon the leg which was removed surgically by myself and immediately followed by x-ray treatments. I heard from this man after three years and he had at that time no recurrence.

In my opinion very few, if any, melano sarcomas are cured by any method of treatment. In melanomas of the epithelial type, however, if surgery or radio-therapy either or both are used in the early stages the prognosis is not quite so bad.

Dr. L. A. Turley: Melanotic tumors, whether they arise from the choroid coat or are primarily in the conjunctiva or occur elsewhere in the body have a common histogenic origin. The embryologists have not yet made it plain or agreed as to whether the melano-genic cells are of ectodermal or misodermal origin and before we definitely classify this tumor it is necessary for us to wait for the decision of the embryologists on this point. The more recent classification of tumors describe a melanotic sarcoma and a melano-epithelioma and it is a fact that in some cases these tumors are composed of small cells and in general have the characteristics of growth that are more typical of sarcoma than carcinoma or other epithelial tumors in that they have scant strauma of their own and are usually vascular and unless traumatized usually metastasize by the blood stream, but in other

cases the cells are large, polyhedral in shape, tend to grow in masses and otherwise more closely resemble epithelial tumors in growth. But we can not justify ourselves by calling one case an epithelial tumor and another of connective tissue origin solely on manner of growth and since so far as we know the melano-genic cells all have a common embryological origin they are always either epithelial tumors and always sarcomas.

In the case in hand it would be quite possible for a tumor to grow through the sclerotic coat to the surface, attached only to this origin by a microscopic thread or column of tissue as well as to be primary in the conjectiva. The fact that the present tumor is the second recurrence would seem to indicate that such an origin and such a history were quite possible and more than probable in this particular case. Tumors sometimes do very peculiar things and quite frequently grow into and through very dense tissue rather than on the free surface where growth would be more easy, and we frequently have tumors burrowing into dense tissue even those that originated in a position which gave them ample opportunity to grow on the free surface with little obstruction. The further fact as cited by Dr. Ferguson that the enlargement in the neck was apparently older because larger does not militate against the fact of the eye being the primary site. I know of a case of one of these tumors arising from the eye and later it had destroyed the entire eye-ball but it did not budge beyond the lids and except for blindness attracted no attention to the eye and yet there were thousands of metastases in the liver, some as large as a baseball. I am not saying, however, that this tumor did arise in the eye, but that such is or is not the origin can be proven only by examination of the eye-ball. It is undoubtedly true that the hematoma of the breast was also one of these tumors and may well have been the primary one in this case since these tumors metastasize by the blood stream it would be quite possible for the metastasis to occur in the eye, although there are so many other more probable possibilities for metastases elsewhere, a fact which further points to the eye as the primary site.

To sum up, it is far better to call these tumors melano-blastoma because they arise from the melano-genic cells and regardless of the origin we can be quite sure that we are right. Furthermore, it must be remembered that they always arise on the surface of the body or in the eye and although one case is composed of small cells and another one of larger cells, we can not make the distinction of sarcoma or epithelioma. They are always one or the other, not both. These tumors usually metastasize by the blood stream unless traumatized in which case they may go by the lymphatics. They are among our most malignant tumors and one in the face of which modern science is most helpless.

Dr. Ferguson (closing the discussion):

Since there were visual signs of metastasis in at least two places, and a probability of another in the brain we felt that the prognosis was hopeless in this case, and so informed the patient.

Since there is considerable pigment in the conjunctiva, and since the base of the tumor was broad, and freely moveable over the sclera and the eye subjectively, and objectively by ophthalmoscope normal, it seems to me more probable that it arose primarily in the conjunctiva. The metastasis may have reached the lymph gland at the angle of the jaw by one of two methods: By direct extension down the lymph channel which sends one branch to the angle of jaw (Cunningham's Anatomy) or, by extension through the lymph channels accompanying the long ciliary arteries back through the ophthalmic artery to the plexus accompanying the internal carotid artery and then out to the angle of the jaw from the anterior cervical plexus. That to the breast and brain probably metastasized by blood stream.

The prognosis in these cases is always desperate, though I have had scant few get well.

Dr. John F. Kuhn: Presentation of a Series of Cases of Empyema.

I have very little that is new to offer to you this evening. But inasmuch as the question was raised at our last meeting as to the relative merits of the two methods of operating for the treatment of empyema, I thought it would be well to show some cases to illustrate both methods and give the reasons for the choice in each case.

The three cases were all post pneumonal; all developed in the hospital, and all were recognized and diagnosed early by the medical staff.

The first patient, G. hospital No. 19356, had made excellent progress in recovery from his pneumonia. He had reached the stage of resolution, had passed the crisis and was for a day apparently on the high

road to recovery when he suddenly developed more pain, his temperature rose rapidly and the physical findings of a pleuritis were found. Effusion into the sac appeared early, and by the fourth day he gave unmistakable evidence of a purulent development. Withdrawal of a small amount of fluid for diagnosis showed pus, and culture gave pure pneumococci. The patient's general condition during this development was unusually good. He was never extremely septic, and he was not physically greatly depressed. His pulse was of regular quality and fair volume. Mentally, he was bright and he was not suffering much pain, nor did he have a serious racking cough. Here we had almost positive evidence of a patient with enough immunizing bodies to resist the extreme depressing influence of this new invasion. Ample time had elapsed, during the usual steps in perfecting the diagnosis, for the development of a good wall of plastic exudate, and yet no time was wasted during which the patient's newly acquired partial immunity might be broken. This seemed to be a case suitable for rib resection, which, by the way, I believe to be the operation of choice if the patient's condition permits the step. Accordingly, this operation was performed. A fenestrated drainage tube with one-fourth inch lumen was inserted about three and one-half inches pointing upwards in the axillary line—free drainage resulted. After four weeks the pus became thick and "lumpy," (indicating probably the disintegration of the plastic exudate). Upon the appearance of this type of pus the cavity was irrigated with a warm four per cent solution of sodium biborate (borax). This irrigation is carried out without force —simply allowing the solution to flow in, and after filling the cavity, allowing it to flow out again. This strong alkaline solution has the property of quickly dissolving the thickening pus—thinning it almost instantly, thus hastening the drainage. After a week of irrigation, the pus cavity had become so small that the tube was removed. This patient has had no fever or other untoward symptom for two weeks—and is discharged cured five weeks after operation.

Case No. 2. L, hospital No. 19609. This was a case of post influenzal pneumonia, with consolidation of practically the whole right lung. In addition to his pneumonia he had serious mental complications. There was no sharp line of demarcation between the pneumonia and the development of the empyema—the symptoms of pneumonia gradually merging into the final definite symptoms of empyema, and during all this time the patient's condition extremely critical. I counseled delay of forty-eight hours to allow some formation of plastic exudate. This, because I believe the traumatizing of the tissue will be less likely to cause rapid absorption of toxins, and also, because I feel that a system unable to aid this much in its own protection is not likely to be able to defend itself against the least bit of added trauma. This patient was moved to the operating room (an unnecessary risk, I believe) and under local anaesthetic a medium sized trocar inserted, and through this a No. 18 F. catheter passed about four inches into the pleural sac. There was considerable shock in this instance—due, I thought, to some collapse of lung when the trocar was inserted. There was very little drainage at the time of operation, but by the following morning it was flowing freely and continued to be very free for three weeks when it became thickened and "lump." At this time irrigation with the sodium biborate solution was begun and continued at irregular intervals as was needed to thin the pus and permit free drainage. This patient had an extremely stormy convalescence, due to his mental state, but as regards the empyema he has made very rapid progress. He has had no fever for six or eight days. The cavity is reduced to practically nil, and the discharge has stopped. The tube is removed fifty-two days after operation. This patient will be kept under daily observation for some time yet, although he seems at this time to be entirely recovered.

Case No. 3, Baby P. hospital No. 19756. This little fellow, age fifteen months was admitted to the children's ward with a tremendous pneumonia—the whole right lung being consolidated. Temperature 105 degrees. He was critically ill during the period of his pneumonia, but on the ninth day after admission his temperature fell to around 100 degrees, and he appeared to enter the stage of resolution. Physical findings, however, were not such as to confirm this. His temperature never reached normal. The percussion note was flat—no breath sounds. A diagnosis of pleural abscess was made, and on January 23, 1923—twelve days after admission, the cavity was aspirated and 140 C.C. of pus withdrawn. He was markedly benefitted for several days but made no real progress toward recovery. He was transferred to my service and I saw him first January 30, 1923. It was clear that permanent drainage would have to be established soon—the baby presenting the classical picture of a chest full of fluid. I waited two days for permission to

operate and on February 1, 1923, under local anaesthetic, inserted a trocar in the 6th interspace—mid axillary line right—pus spurting our fully three feet as soon as the cavity was penetrated. A No. 14 F. catheter was inserted and no further attention given except to keep large sterile absorbent pads in place. He drained very freely constantly, but made very little progress for the first ten days—partly because of an otitis media, and I believe also, a small area of pneumonia in the left lung. He continued to drain freely during this time and about the 12th day after the tube was first inserted his temperature reached normal. From this day onward he made rapid progress toward recovery—the drainage diminishing rapidly and the general symptoms clearing up rapidly. On the 21st day while the nurse was redressing him the tube slipped out and the interne was unable to replace it. Inasmuch as the drainage had almost ceased and the patient was making such excellent progress, I decided to leave the tube out and observe the effect. On the 23rd, however, two days later, it became apparent that the cavity was again filling with pus, so under one-half per cent procaine the tube was again inserted through the trocar. This drainage was continued then until final dismissal. Occasional irrigation with a solution of sodium borate (whenever the pus became thick) was instituted. The progress after the second drainage was much slower, some pus discharge continuing. The tube was removed April 22, 1923, and not replaced. Slight pus continued to drain from the track for several days—the amount diminishing from day to day until it ceased entirely on May 6, 1923. He was continuing to show a slight daily temperature up to 99 degrees, but was making excellent general progress. Chest finding gradually returning to normal. We wished to keep him under further observation but his mother insisted upon taking him home, so he was dismissed on May 8, 1923, having been under treatment since February, 1923—ninety-eight days.

I believe this case was greatly prolonged because of the failure to reinsert the drainage tube immediately when it first slipped out. My excuse for the delay of two days being that the patient had been making such excellent progress that I hoped we were through with the drainage.

Dr. A. D. Young: Muscular Dystrophies:

The muscular dystrophies, while constituting a very consistent group, may not clinically resemble one another at different periods of their progress. They usually begin early in life and may be present in several members of the same family. The disease may affect practically all the muscles of the body or may be limited to a group of muscles or may damage only parts of single muscles and even in the midst of an extensive atrophy, some fibers may be hypertrophied. The disease affects certain muscles more frequently than others, as for instance, the pectorals and serratus magnus. As the disease advances the reflexes gradually disappear, the muscles become more and more atrophied and finally contractures develop. There are no sensory symptoms. The bones participate in the atrophic process. The muscles are pale, the fibers lose their nuclei, new connective tissue replaces the atrophic muscle fibers and in some cases there are deposits of fat giving the appearance of hypertrophy. The varieties are:

(1) Pseudo hyper-trophic (Duchene).
(2) Juvenile (Erbs).
(3) Facio Scapula-humeral.
(4) Atrophia myotonia congenital (Appenheim).
(5) Distal (Gowers).
(6) Mixed and transitional.

There is another group that is generally known as progressive muscular atrophy that begins later in life, perhaps more often in the third decade. In contemplating this set of nervous disorders one should bear in mind that the motor and trophic neurons are divided into three parts, the anterior horn cells, the motor nerve and the muscle plate. It has always been taught that there are two ways in which this group begins, one by primary degeneration of the anterior horn cells and the other by primary degeneration of the motor nerve. However, if the neuron theory is correct and the anterior horn cells are responsible for the integrity of the nerve fibers, it must necessarily follow, it seems to me, that all these atrophies must be due primarily to degeneration of the anterior horn cells.

There is also a variety affecting the nuclei in the brain, called mesencephalic, causing gradual degeneration of the cranial nerves with consequent ophthalmoplegia and a bulbar type affecting the muscles of deglution, phonation and even the respiration and heart.

The cause is either a congenital defect in the nervous system causing an early death of the cells or, there is present a chronic infection producing the same result. I do not know which theory is correct.

Some cases seem to be a chronic poliomyelitis, at least clinically.

Presentation of Cases

Case 1. Began with atrophy of shoulder girdle gradually involving arms. This boy, who is a patient of Dr. W. K. West, is wearing a brace to assist in supporting shoulders.

Case 2. A boy 15 years of age shown through kindness of Dr. Leroy Long. Atrophy began in legs and now, as you see, involves all the muscles of the arms, legs and trunks. He cannot move the legs at all and the arms very little.

Dr. R. M. Howard: Embryonal Cysts and Fistulae of the Neck:

Embryonal cysts and fistulae of the neck may be either of two types, i. e.; branchial cysts and fistulae, or thyroglossal cysts and fistulae, each differing from the other very widely in its origin, but having in common a characteristic epithelial lining which causes persistence until it is entirely removed.

The branchial type originates from imperfect closure of branchial clefts in embryonal life which leave fistulae, or cysts lined by mucous secreting epithelium. These may not cause trouble until by irritation, infection or closure of a fistula that has drained the tract efficiently before that time. This may not take place until adult life when a cyst or an abscess will appear that, when drained, as often is the case, will leave an external fistulae which will persist.

Normally the upper cleft is the only one that remains open, forming, as it does, the external ear, the eustachian tube and the auditory canal. Any one of the three lower clefts, persisting in part or whole, results in the above described condition. Minute openings on the skin of the neck along the anterior border of the sterno-mastoid muscle are often seen. These secrete small quantities of mucous for an indefinite time but are a potential source of trouble. Undoubtedly similar internal openings are present. Cysts occur that apparently have no external or internal openings.

The thyroglossal cysts and fistulae resemble the branchial type but are of different fetal origin, being connected embryologically with the thyroid gland. Embryologists have shown that the foramen caecum on the back of the tongue is the remains of an obliterated canal ,which was left in the descent of the thyroid from this region, leaving a duct which naturally closes. Unobliterated portions of this duct lined with epithelium form thyroglossal cysts or fistulae.

These congenital conditions do not always cause symptoms early in life. Once having caused trouble they remain as indurated tracks leading inward, being situated between the anterior borders of the sterno mastoid muscles. The distinguishing features are: First, that the branchial type are lateral while the thyroglossal are mid-line affairs, and second, the branchial tracks lead upward, outward and posteriorly entering the pharynx while the thyroglossal pass upward and backward in the midline to the base of the tongue.

In the treatment, the epithelial track must be removed in its entirety. This is not always easy. Cysts and dermoids of the same origin must be classed with the fistulae and require the same treatment.

In operating the branchial fistulae, great difficulties are encountered, the epithelial lined track being so closely adherent to the great vessels and nerves as to make the proceeding hazardous. From pharyngeal or tonsilar region these tracks cross in their downward course the pharyngeal and hypoglossal nerves, and pass under the stylopharyngeus and styloglossus muscles emerging alongside the great vessels, passing between the external and internal carotids and crosses the digastric muscle to the hyoid region. They then find exit between the sterno-mastoid, sometimes low in the neck.

The thyro-glossal fistulae are much easier and certain of removal. They can be followed up on the anterior surface of the trachea in the midline to the hyoid bone. Most usually they pass through the hyoid bone and a piece of it must be excised: From here they pass upward and backward at an angle of 45 degrees to the base of the tongue. By following the direction and by removing a quarter of an inch of tissue around the track, little difficulty is found in removing it entirely. The opening in the tongue can be sutured and with drainage the wound will soon heal.

I have operated four branchial fistulae, and three thyroglossal fistulae without a failure. In one of the thyroglossal fistulae the second operation was necessary due to leaving some epithelial tissue of the track low in the neck.

The case I have to show you is one that I operated ten days ago. A young man whose trouble first became noticeable in

1918 when a swelling appeared on the front of his neck. This was incised in the midline and drained almost continuously until August, 1922, when he was operated at Houston, Texas. Wound healed for one month, then had to be operated again; drained for awhile, closed and drained again. When he came to the hospital, March 3, 1923, he had a swelling in midline of neck very low, beneath scar of old operation. Dr. Clymer saw him, incised the wound and injected bismuth paste for the purpose of obtaining an x-ray pitcure. This did not prove very satisfactory, but wound closed. He returned to the hospital on April 3, 1923, with a fluctuating mass in midline of neck extending upward. He complained of pain in region below right ear.

A diagnosis of congenital cyst of neck, probably thyroglossal in origin, was made as indicated by its midline position.

On April 7, 1922, through a transverse incision at the middle of the neck above the old scar, I dissected out the cyst from below and followed it upward to the hyoid bone, thence outward and upward along the carotids, thence inward to the region of the tonsil. Its direction compels us to change our diagnosis to that of branchial cyst. A drain was left in place for forty-eight hours. The wound is healing and I expect him to be cured. The only possibility of failure would be from some portion of the epithelial wall having been detached low in the neck where much scar tissue was encountered.

Discussion: Dr. Horace Reed.

All that Dr. Howard says is true. I think that with one exception, every case I have seen has been operated on for something besides the true condition. The majority have been operated for tuberculous abscesses—because they did not get well. One case I operated myself, last I had, I was in doubt as to what I was dealing with. The man came in with a knot on the side of his neck, which was discharging. He refused to go to hospital and have operation, and induced me to operate under local anaesthetic in the office. To my chagrin, he came back in three or four weeks and had a little moisture there. He would not submit to operation when I told him the nature of the trouble.

There is an additional procedure in diagnosis that can be used. To determine whether one is dealing with a congenital cyst or a sinus of some other formation, one needs only to make a microscopic examination of the secretion. If epithelial cells are found it is conclusive evidence that the trouble had its origin in a structure line with mucous membrane. Sinuses resulting from diseased bone, cartilage or thyroid gland would discharge no epithelial cells.

One other point in diagnosis, namely, to determine whether or not the tract enters into pharynx, inject material of some coloring matter and watch at the same time the pharynx and the point of exit of the coloring matter will determine whether it is a thyroglossal or branchial cyst. At operation I do use a probe. I insert the probe very gently, as large a one as will go, and try to get it passed on into the throat and dissect out tissue about it, because if you do not dissect out the tissue around it will have a recurrence.

Dr. F. M. Sanger: One thing I wish to speak of—I enjoyed Dr. Howard's paper very much. In these branchial cysts, it takes us back to our embryology, which shows us our origin in common with other vertebrates. You remember in the embryology of fish and frogs and pigs, early in their development the tail appears and in man when the embryo is only seven to eight mm. long the tail is about one-sixth the entire length of the body. And we notice in the sixth week the tail begins to disappear and by the ninth week regression of the tail is usually complete.

These branchial cysts persist from embryonic life—their regression did not occur, as it should have done. These branchial cysts are remains of one or more of the three lower pairs of the branchial (visceral) grooves, that are at first separated by the branchial arches. The external auditory meatus is formed by the upper part of the first pair of branchial grooves and the auricle is formed by its margins. The other three pairs of grooves, being depressed, form the cervical sinus and this also normally soon closes over and becomes obliterated.

But as Dr. Howard has pointed out this evening, one great annoyance in these post natal branchial cysts, is the secretion which is thrown out by their mucous membrane.

Dr. A. D. Young: I want to ask if fish have ears? They always say be quiet when fishing.

Dr. F. M. Sanger: In answer to Dr. Young's question: The fish has the mouth in the upper part of the head which head is both neural and visceral in its origin. The ear consists only of a membranous labyrinth. The bones of the skull transmit the

sound waves to the fluid within the labyrinth. The ear of the fish (the lowest of the vertebrates) has the three semicircular canals and a sacculus which contains concretions of calcium carbonate, called ear stones, or statoliths. To the fish the ear is both an organ of hearing and of equilibrium.

Dr. T. Wails: In some fish along the sides of the neck, just back of the semicircular canals, or organs of equilibrium, is what is called the tactile sense organ. This organ seems to have some of the functions of both the ear and the nose. If a fish is placed in one end of a trough and some highly scented piece of bait is placed in the other end the fish will immediately swim over in that direction. This tactile sense organ is also thought to be able to detect pressure waves transmitted through the water and thus function as an ear.

Dr. J. M. Alford: A little more than two years ago a young man came in to me who had been operated on and part of a cyst had been removed, but it reappeared. I could not get any methylene blue through it, but filled it full of paste. The patient went away and I did not hear from him for about six months. They told me the sinus had healed and has never recurred since. I think this was a thyroglossal cyst, but do not know.

Dr. C. E. Clymer: Will say that we injected this boy for taking X-ray and the same thing happened for a time.

Dr. Howard (closing the discussion): One question might be asked in the thyroglossal type. Does it do any particular harm to cut your hyoid bone? I have only had two cases in which I have done this. The procedure they are doing now after taking out the tract through the middle of the hyoid bone, is to come back and put two or three catgut sutures in drawing the sectioned ends of the hyoid bone together in the midline. No cases have been reported where any particular harm seems to have come from this.

Abstracts, Observations from Current Medical Literature

THE TREATMENT OF AMEBIASIS

Although any drug that affords prompt clinical relief from amebiasis deserves serious consideration, it should be clearly appreciated, in the interest of progress, that neither **Castela nicholsoni** nor emetin, as employed at present, is an ideal agent for the eradication of **Endamoeba histolytica** infections in man. It has long since become evident, through careful examination of the stools of patients, that freedom from clinical symptoms does not constitute a biologic test for the eradication of the invading protozoa. A serious difficulty in the study of drugs detrimental to amebas has been the lack of satisfactory methods for artificial cultivation of the admittedly pathogenic species. From an experimental standpoint it is fortunate that amebiasis can be induced with more or less success in some of the common laboratory animals, notably cats. Spontaneous recovery is rarely noted.

Sellards and Leiva have come to the tentative conclusion, from their observations in treating infected animals with emetin, that recovery from amebic dysentery in man and other species results from a combined action of the natural resistance of the host and a moderate action of the drug on the amebas. The summation of these two factors is necessary for a radical cure. A lowering of either allows the disease to progress. Incidentally, also, they[2] have come to the conclusion that stasis is probably an important factor in determining the location of the lesions within the large bowel, in spontaneous amebic dysentery in man.—**Jour. A. M. A.,** June 30, 1923.

INCIDENCE OF HOOKWORM DISEASE AMONG PERSONS WHO WERE CURED FIVE YEARS AGO

Dwight L. Sisco, New York (**Journal A. M. A.,** Feb. 17, 1923), reports certain results obtained during a resurvey of an area on the island of Antigua, British West Indies, in which the measures for the relief and control of hookworm diseases were terminated five years ago. Both the treatment campaign, extending from September, 1915, to June, 1917, and the resurvey, made during April and May, 1922, were conducted under the auspices of the International Health Board of the Rockefeller Foundation. The paper is of interest because it records the results of a careful study of hookworm infection among persons whom microscopic examination had previously shown to be cured of the disease. The findings which it presents are in complete accord with observations made by Smillie under analogous circumstances in Brazil. It demonstrates certain fallacies in campaign procedure, and emphasizes the need for definite measures in order that permanent hookworm control may be attained.

"FIRST AID TO MEDICAL TERMS" is the manner of introduction to, what appears to some persons a rather baffling, vague or misconstrued matter. It is admitted at the start that we have a number among ourselves who do not know the "Why" of certain things. Watson Davis in **Hygeia** (June 1923) undertakes to tell us why certain diseases have more than one name, for instance:

"Richard Bright, one of the 'great men of Guy's,' that is Guys Hospital, London, during the first fifty years of the last century, is famous today, beyond his just dues, perhaps, because his last name is associated with a disease that is relatively common. Before the days of Bright, medical men did not realize that the kidneys as well as the heart can cause dropsy, which, since its Greek ancestor was water, means a swelling or an unnatural accumulation of watery fluid in the body. When Bright distinguished between cardiac (from the Latin for heart) dropsy and renal (from the Latin for kidney) dropsy, he won an immediate reputation to enjoy during his lifetime, and the condition has been known as Bright's Disease ever since.

"A Dublin physician, Robert James Graves, published in 1835 a description of exophthalmic goiter so admirable that the disease still goes by his name. In point of priority, however, it seems it should be Parry's disease, as in 1786 Cabel Hillier Parry wrote an account of this disease. The Germans prefer to call this disease after one of their countrymen, Basedow, who wrote a desription in 1840, and the Italians claim that this disease should memorialize one of their race who described it in 1800. The most common synthetic name, exophthalmic goiter, means a swelling of the neck at the throat (goiter comes from the Latin for throat) accompanied by a sticking out of the eyes (exophthalmus) but usually prominent eyes are not always a symptom, and for this reason some do not like this name.

"If one has occasion to use the name of Dr. Percival Pott (1714-1788), one must be careful because Pott's name is associated with two medical troubles, one of which he described and the other of which he experienced. While walking down the street one day he fell and fractured the outer bone of his leg, the fibula, so-called because this Latin name means clasp. And this particular fracture has ever since been called Pott's. While Pott was in bed recovering he began writing descriptions of diseases, and among them was Pott's disease, or tuberculosis of the spine, the cause of hunchback.

"Riggs' disease, although it was first described in the eighteenth century, is named for the American dentist who in 1876 introduced the modern heroic treatment of scraping the teeth to the roots. Its scientific name is pyorrhoea alveolaris, which, when translated, is pus running jaw.

"As late as 1910 a fever appeared in New York that was named after Nathan E. Brill who discovered it, but now it is recognized that Brill's disease is a mild form of typhus.

"It was not known that the throat and middle ear are connected by the eustachian tube until Eustachius, a sixteenth century Italian physician, discovered the fact, and even a hundred years ago there were still fresh fields for the ambitious anatomist to explore.

"Caesarean section is so-called because it is reported that Julius Caesar was brought into the world by such an operation.

"The Schick, Wassermann, and Widal tests, so important today, are all named for the men who devised them.

"If a layman afflicted by some new malady becomes jealous of its christening, let him remember that it takes a Julius Caesar to have his name commemorated medically."

NEW TREATMENT FOR PARESIS

Paresis, the disease known as general paralysis or softening of the brain, has always been considered by physicians to be a progressively fatal disease. Few patients who suffer from this disease recover. The mind is affected, and during a long period of years the symptoms increase in their intensity. When the drug known as arsphenamine (salvarsan, "606") was discovered to have special virtues in the treatment of syphilis, and when it was known that general paralysis was due to the effects of syphilitic disease, it was hoped that some advance might be made in controlling the progress of paresis. Thus far attempts have not resulted in any striking recoveries, although in some instances highly beneficial effects have been reported. This state of affairs has caused medical investigators to continue their attempts to find a method of controlling the progress of paresis. During the last few years certain German investigators, basing their efforts on the knowledge that certain types of bacteria cannot live in the presence of others, just as certain human beings find it difficult to live with other species of animals, have attempted to reach the cause of paresis by injection into patients with paresis the blood of patients with malaria. While the results have not been conclusive, the method has been carried out on a large number of patients and in a considerable number of instances with sufficient success to warrant the belief that it may have virtue. It is interesting to learn the process by which the investigators arrived at their decision to use this method. They had observed that patients with paresis tended to improve when they became ill with malaria. It has long been known that malaria may be controlled by the proper administration of quinine. It was therefore decided by the European investigators to inject blood infected with organisms of malaria into the patients, and then, after they had been subjected for a certain time to the malaria, to cure them of the latter disease with quinine. As has been said, the results in many instances were strikingly effective, and the method has now been extended to certain institutions in this country where it is being studied under controlled conditions. No doubt within the next few years its real value will become apparent.—Hygeia, June, 1923.

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Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds unapproved by the Council on Pharmacy of the A. M. A., will not be accepted.

Advertising rates will be supplied on application. It is suggested that wherever possible members of the State Association should patronise our advertisers in preference to others as a matter of fair reciprocity.

EDITORIAL

DATA ON ALLEGED LACK OF PHYSICIANS AND INCREASE OF IRREGULARS

E. P. Lyon, Dean, Medical School, Minnesota University, has this to say in American Medical Association Bulletin, May, 1915, about the charge that scarcity of regular physicians is responsible for the increase in Chiropractics, Osteopaths, etc.:

The data is made up of investigations of towns of 200 to 700 people, where there may have been no physician within 25 to 50 miles; and, of towns 1,000 or over. He notes the many sides and discoveries to the matter with the following statements:

Thirty towns reported no doctors, no osteopath, no chiropractor. Fifteen towns have a doctor but have no osteopath or chiropractor. Two towns have each one doctor and one chiropractor. All were of less than 1,000 people and most of them of less than 500.

"In not a single place do we find an osteopath or chiropractor serving the people with no regular physician available. This seems to me to settle the contention that the irregulars are filling the alleged need for doctors in small country places.

"When we consider larger rural places—towns of 1,000 and over—one always finds one or more physicians. Of course, the irregulars are also likely to be found in such towns. The point is that they are **not taking the place** of the doctor, but are **additional** to him.

"There are at present in Minnesota three health officers who are osteopaths. These are all in large towns where physicians are located. No chiropractor is a health officer at the present time.

" . . . The osteopaths and chiropractors go to the larger cities and towns just as the doctors do. They do not go to the small villages where there is no doctor. Whatever reason there may be for the irregulars' existence, it is not to fill vacancies due to a lack of physicians. The people are not, as some say, crying for poorly prepared doctors because they cannot get better ones. There is no need, at least in the Northwest, to lower the standards of medical education or to found more medical colleges or to increase medical school classes beyond the limit of efficient teaching."

BEWARE THE "OLE SWIMMIN' HOLE"

Nothing is more dangerous, nor one thing more full of potential destruction than the average casual, joyfully looked forward to summer vacation, with its vistas of green trees, valleys, running streams, deep, blue, placid pools. About and around every one of them lurks the deadly **anopheles** and not only that generously sized family, but others of the insect life capable of inaugurating destruction finally to a giant human frame.

It should be remembered that there is hardly a spot in Oklahoma, not having such dangerous possibilities. It should not be forgotten that every stream of brilliantly clear water is not necessarily a **pure** stream; it may be just as full of typhoid or dysenteric infection, of **colon bacillus** as a rank, dank sewer, and this applies to every "swim-

min' hole." It especially applies to the so-called "purified" natatoriums, where a sense of false security is given the attendant with the posted statement that "this water has been purified" with "so and so's" system of water purification, often a system utterly worthless, and even if it were finely proficient, the moment a human body hurtles into it it becomes a possible source of dangerous infection from the impurities carried into it by the natty swimmer, who may be a syphilitic, gonorrhoeic, dysenteric, etc.

One of the most dangerous prevalent ideas, and widely prevalent ideas at that, is the one wherein the outer goes to some clear hill stream, the water apparently matchless, yet full of human excreta and death.

If it were left to the writer he would advise everyone who contemplates such an outing, to first be sure of the water supply; to be especially suspicious of the swimming pool full of other people, infectious as they are most sure to be; to be especially suspicious of every type of insect, and, above all things to sleep in a tent well screened from insect life by adequate mosquito bars.

COMMON SENSE IN PHYSICAL EXAMINATION OF SCHOOL CHILDREN

Dr. E. R. Hayhurst **(Ohio State Medical Journal)** raises the question of the lack of a proper modicum of common sense in examination of school children, in examination especially of those returned from recent illnesses. He notes the collapse of different children after rather ordinary physical effort, which, under ordinary circumstances, they should have withstood without trouble. He also notes the inefficiency of the average, casual examination as given to these children, and, rightly demands a higher grade of efficiency in the work and a larger amount of injection of the personal equation into the cases. They cannot be treated as so many oak posts or pieces of steel. Noting a sufficient appropriation, he can only find the door of medical inefficiency open and unattended as a cause for the condition.

The subject is timely just now, for in a few weeks thousands of Oklahoma's children will start in on their daily grind of school duties, only after a few weeks, hundreds of them will "lay off" for from a few days to a few weeks on account of illnesses, principally respiratory or exanthematous. Now after their return is the time and place for the exposition of the fine Italian hand of a good faith medical examiner, and the work should not be slurred over, the skin, mouth, throat, nose, heart and chest should be thoroughly investigated, for anyone of them may hold potential destruction or weeks of ill health, all avoidable by a good faith examination at the right time, which means before the latent matter has infested the entire system. At this time, ordinarily, very simple medical and direct application treatment will suffice to avert what may prove, if neglected, to become a serious matter. The only person who is in position to do this is the examiner himself. If he is not an honest man, unintelligent, get rid of him and get an honest, intelligent substitute who will function as he should.

THE QUESTIONAIRE FIEND

Well, at the outset we are tired of him, very tired. Probably it is not exaggeration to say that seven-tenths of the silly questions he asks are answerable by a brief inspection of any old directory of the A. M. A., past or present. He is in a class with the Ass who writes into the office asking for a list of county society presidents and secretaries, forgetting in the same breath that that information is carried in the back of nearly every Journal he receives. We are tired of him. In August he is especially obnoxious. All he has to do is to wake up for a minute or so and recall that the very list he seeks is obtainable in any number of publications, lying at his elbow. **Tired, TIRED,** we are very tired of that careless fellow who wears us out answering questions, to which he has the answer all around him.

THE SCHOOL CHILDREN HAD THEIR TURN

"Next we made a great jump to the children in school. Wherever teachers and parents are really playing the game of life fairly by the children, they have arranged that every kiddie, when he enters school, and two or three times before he graduates, shall have a careful study of heart, lungs, eyes, throat, teeth, back, and joints, so that the many handicaps, little and big, which often spoil the chance of learning, and later of working, may be corrected early. These medical inspections in school are just what we mean by health examinations, except that unfortunately the schools and the health departments provide too few doctors to give most of the children more than a superficial and incomplete inspection."

—Haven Emerson in Tygeia, June, 1923.

PLAGIARISM

By H. Addington Bruce

As newspaper readers are pretty generally aware, the ugly charge of plagiarism, of literary theft, has lately been laid against Louis Hemon, author of that delightful story of pioneer life in Quebec, "Maria Chapdelaine."

Hemon, who being dead cannot defend himself, is accused of having pirated Kipling's short story, "On the City's Wall," in a story called "Youth's Pride" published in a French magazine with Hemon's name as author. Nor does the evidence leave doubt that "Youth's Pride" is something closer than adaptation from Kipling.

But this is not proof that Hemon deliberately passed off Kipling's work as his own. The plagiarism may be more seeming than real, an editor or literary executor perhaps having mistakenly attributed to Hemon the authorship of what Hemon wrote merely as an exercise in translation.

There is still another possibility. This is that Hemon, in writing "Youth's Pride," unconsciously reproduced from memory Kipling's ideas and language while honestly thinking they were his own ideas and language. And the possibility of such unconscious plagiarism is by no means so remote as might be thought.

Some years ago Lowes Dinckinson, investigating an alleged case of "spirit control" manifested in automatic writing by one of his personal friends, was able to trace all the "spirit utterances" to a novel read by his friend in childhood. The friend, so far as conscious recollection went, had forgotten all about having read this novel. Yet the automatic script proved that there had been a remarkable retention of the novel's plot and dialogue in the depths of the "medium's" mind.

Other investigators of the so-called "subconscious" have similarly established that a vivid latent memory of ideas and language once heard or read is quite compatible with a complete forgetfulness by the upper consciousness of any reading or hearing of the ideas and language under consideration. This conceivably is what happened in Hemon's case, a mistaking of memories for his own ideas.

Of course, as J. C. Gregory has remarked in a general discussion of forgetfulness, "cryptamnesia, mistaking recollections for fresh thoughts and new perceptions, may be a suspicious refuge for the plagiarist." But it is important to bear in mind that such mistaking is an actual occurrence in mental life.

Hence, most assuredly, when it is a question of plagiarism, the fact of thought and language identity should not hastily be accounted proof positive of wilful stealing. Weight should be given to other factors, such as the supposed plagiarist's general reputation and psychic make-up, before judgment is definitely passed.—Kansas City Star.

Editorial Notes—Personal and General

Dr. L. D. Conn, Morris, has located in Tulsa.

Dr. C. D. Dale, Caddo, has moved to Henryetta.

J. A. Morrow, M. D., has removed from Sallisaw to Durant.

Dr. C. M. Bloss, Okemah, is attending the New York Clinics.

Dr. S. A. Rice, Alma, has announced his removal to Duncan.

Dr. and Mrs. R. L. Westover, Okmulgee, visited Indiana points in June.

Dr. and Mrs. J. T. Riley, El Reno, attended the San Francisco meeting.

Dr. Levi Murray is spending a few weeks vacation at Colorado Springs.

Dr. J. B. Lightfoot, Miami, has been appointed city physician for that city.

Dr. D. F. Janeway, Stillwater, is the new county physician for Payne county.

Dr. H. A. Howell, Holdenville, has been appointed health officer for that city.

1. See "Limitation of Osteopathy in Idaho," The Bulletin, April, 1923, page 87.

Dr. W. E. Lamerton, Enid, has been appointed county physician for Garfield county.

Dr. E. C. Byram, Holdenville, has relocated in Okmulgee in the Commerce Building.

F. E. Rushing, M. D., has left Coalgate and located at 404 Security Building, Tulsa.

Dr. Samuel N. Stone has been appointed Health Officer of Edmond for the third time.

Dr. and Mrs. H. T. Ballantine, Muskogee, are spending the summer at Calhoun, Ky.

Dr. W. B. Mead, Lawton, has been appointed county physician for Comanche County.

Dr. R. C. Meloy, of Claremore, has been appointed county physician of Rogers County.

Dr. and Mrs. C. W. Heitzman, of Muskogee, are spending a few weeks vacation in Canada.

W. M. Duffy, M. D., has left Braden and is now located at 2814 Spencer Street, Dallas, Texas.

Dr. Leonard Williams, Pawhuska, is in Chicago where he will do special work for several weeks.

R. B. Seay, M. D., of Oklahoma City. has moved to Memphis, Tennessee, about the first of July.

Dr. Lin Alexander has been appointed county Physician of Okmulgee County.

Dr. and Mrs. A. L. Blesh, Oklahoma City, will spend the summer in Estes Park.

Dr. W. P. Greening, Pauls Valley, has returned from a visit to the eye, ear, nose and throat clinics of Denver.

Dr. and Mrs. E. S. Lain and daughters, returned to Oklahoma City from a month's vacation on the Pacific coast.

Dr. and Mrs. W. E. Flesher, Oklahoma City, visited Bella Vista and other Northern Arkansas places in July.

Claude B. Norris, M. D., is now located at the Lakeside Hospital, Cleveland, Ohio, having left Oklahoma City.

J. E. Brookshire, M. D., has removed from Nowata to Alhambra Square, 15th and Peoria, Tulsa, about July 11th.

Dr. H. L. Summers, of Osage is getting some good work attending the Clinics in Chicago, during the month of July.

Dr. Banting will receive $7,500 annually for the rest of his life if plans of the Canadian House of Commons materialize.

Drs. J. B. Smith and **L. F. Lee,** of Durant, are motoring to points in southern Texas, to be gone for ten days.

Dr. J. L. Austin, of Durant, is locating at Roswell, New Mexico, temporarily on account of his family's health.

Dr. Roscoe Walker, Pawhuska, and family are motoring to Minnesota via Kansas to spend a month's vacation.

Dr. David D. Paulus, of Oklahoma City, is spending a month attending clinics in Canada, New York and Boston.

Dr. P. M. Richardson, of Cushing, President of the Paine County Medical Society, attended the Surgical Clinics of Chicago during July.

Dr. J. O. Hudson, of Bartlesville, is taking a ten weeks' post-graduate course at the New York City Post Graduate Medical School.

Drs. Walter and **Eva Wells,** Oklahoma City, have just returned from an extended visit to the clinics of New York, Buffalo, Chicago and Canada.

Dr. Roscoe Walker, of Pawhuska, is spending some time at Rochester, while his family will enjoy a vacation at the nearby lakes and resorts.

Dr. C. E. Barker, Oklahoma City, has been reappointed, after some "backing and filling" by the city commissioners, to the office of city physician.

Dr. S. E. Mitchell, Muskogee, has been appointed a "full-time" man on the staff of the Soldiers Memorial Hospital and has made his home at the institution.

Dr. W. Albert Cook, Tulsa, delegate to the A. M. A. San Francisco Meeting drew appointment as a member of the Committee on Medical Education for the coming year

Colonel Hugh Scott, Muskogee, was re-elected President of the Association of Reserve Officers, United States Public Health Service, recently meeting in Washington.

Osage County medical society held a meeting at Pawhuska, July 2. Several Tulsa Physicians attended the meeting. After the scientific session refreshments were served.

Dr. and Mrs. H. D. Shankle and daughter, Helen Louise, of Hartshorne, spent the month of July in Asheville, N. C. (The Land of the Sky) and on the lakes in northern Ohio.

Dr. Ephraim R. Barker, of Healdton, has returned from the Mayo Hospital at Rochester, Minn., where he was operated upon for varicose veins of the leg, and is getting along fine.

Dr. H. A. Wagner, shawnee, was host to the nurses of the Shawnee General Hospital July 11, when he treated them to a swimming party and liquid refreshments fitting the occasion.

Dr. J. M. Byrum, Shawnee, Delegate to the San Francisco meeting managed to "clean up" as advertising solicitor for the JOURNAL, thus making his trip doubly worth while to the Association.

Dr. Floyd J. Bolend, Oklahoma City, as Commander of the 120th medical regiment recently had the satisfaction of seeing his command awarded two silver cups as trophies for the work performed.

Noble County Medical Society met at the Carnegie Library, Perry, and a clinic of 28 tosil cases was given by Dr. C. B. Barker, of Guthrie, assisted by Drs. Owen, Coldiron, Gaines, Darrow and Cavett.

Dr. A. Y. Easterwood, Ardmore's City Physician claims the palm for his city as to sanitary conditions at present. Well, that is fine, just keep it that way. A matter of no small difficulty in a rapidly growing oil city.

McIntosh County Medical Society met at Eufaula July 3rd, and presented an interesting program: "Organo-Therapy" by Dr. G. W. West; Report of Delegate to the State Association Meeting; and a Clinic—Report of Cases.

July Cancer Editorials, due to an error, were not signed as such special editorials usually are. The one entitled "Cancer" was written by Dr. G. A. Wall, Tulsa, that entitled "Truth, The Whole Truth, Nothing But the Truth," by Dr. Ralph V. Smith, Tulsa.

Garvin County physicians entertained themselves to a thirty plate banquet at Pauls Valley, June 27th, that is, they partook after their hospitable wives had prepared the feast. Several out of town physicians were present at both the scientific and social meetings.

Dr. M. K. Thompson, Muskogee, simply will not down when it comes to taking on woes as a school board member. At nearly every meeting a "tempest" arises in which the doughty doctor is either at the vortex or the rim of the trouble, usually all over the pool before the affair is over.

Dr. Albert Aisenstadt, of Pitcher, was married at Long Beach, Cal., June 16, to Mrs. Minnie Spencer, formerly Secretary of the American Hospital at Picher. The Doctor and his bride are returning home by motor through the northwest including a visit to Chicago.

Dr. J. A. Milroy, Okmulgee, is asking, by the civil suit route, the sum of $1,092.00 for services he alleges he performed during two months as

county physician for Okmulgee County. Itemized statement shows much of the work was for professional calls at the county jail.

Dr. D. A. Beard, Tulsa, City Superintendent of Health, has nominated Drs. A. W. Pigford, A. V. Emerson, T. W. Stallings, C. S. Summers and I. N. Tucket as a board of health that will "actually function." We agree to the list and stand with him in his idea that they will produce results.

Oklahoma Delegates to the A. M. A. were present in number sufficient to please the most critical taste of the Frisco Meeting. In addition to the regular delegates, Drs. W. Albert Cook and J. M. Byrum. Dr. E. S. Lain managed to squeeze into a permanent seat when his principal representing the section of Dermatology and Syphilology found he could not be present.

"Unscrupulous Physicians," according to the McAlester **News Capitol** are responsible for the irksome restrictions imposed upon reputable physicians in the use of narcotics and alcoholics. True, all repressive laws and regulations are due solely to the fact that a few unscrupulous or foolish people insist on doing what the ordinary honest man will not do.

Dr. G. M. Clifton, Norman, is no longer a member of the University Board of Regents. Internecine strife among board members is placed as the cause of Dr. Clifton's disconnection from the board. It is said, Dr. Clifton, a Walton appointee, with another member of the board, brought about a deadlock which finally resulted in Dr. Clifton becoming disgusted and handing in his resignation.

"TEN YEARS AGO TODAY" in the Muskogee Phoenix of July 22 reads in part as follows: Four Muskogee boys . . . . Tom and Dick Lowry appeared on the regular vaudeville bill at the Broadway Theatre." Oklahoma County Society has the right to tip. Whenever a real "show" is desired by that organization all they have to do is to call on their genial secretary and his brother, the rest will be consummated by that pair of high-class "artistes."

Dr. I. W. Bollinger, Henryetta, was named by the county commissioners as physician for the south side of Okmulgee County, geographical arrangements making it necessary to so sub-divide that county. Funny that few, if any of our job creating county executives have never thought of such divisional possibilities before this. Why, if they can legally halve the county, they can quarter it, in the face of necessity, thus creating many new jobs for the faithful. Okmulgee, however, really needs such division.

"Persons who will be operated upon in 1942 for gall-bladder troubles are beginning to show the first symptoms today," so said Dr. Walter C. Alvarez, San Francisco, to a group of medical listeners, a statement which was promptly taken up and heralded by the daily papers of that great metropolis. The pity of it all lies in the fact that many of the victims will be treated over the years to come for "acute indigestion," "gastritis," etc., until the fatal day comes when it is too late for any sort of intervention, surgical or medical to save the unfortunate.

Muskogee's "swimmin' hole" at Honor Heights is clean, according to report of Dr. F. W. Ewing, city superintendent of health; the report arose from the fact that a "Junior" Civitan member stated that "all other cities in Oklahoma" demanded health certificates as prerequisites to entering the pool, a statement which everyone, of course, knows is not correct. However, no pool can be said to be "clean" a moment after a human body plunges into it. There is always a small element of danger present, regardless of any and all attempts to keep the water bacteriologically clean.

Muskogee County physicians "set 'em up" to themselves with a chicken picnic, held on the banks of Fourteen Mile Creek, in Cherokee County, Monday, July 16. The invited guests were Drs. Ralph V. Smith, President and G. A. Wall, Councilor, Tulsa. The cooking was under the supervision of Dr. Claude Thompson, who prepared his celebrated "smudge" for the chicken, without which no barbecued chicken may be said to have reached that stage of perfection as an edible of the high class admitted by celebrated gourmands to be the "best ever." Dr. A. L. Stocks, Muskogee, also lent his invaluable advice for the occasion.

MOSQUITOES, CHIGGERS, BLONDES, BRUNETTES—"A Muskogee doctor has a theory that mosquitoes and chiggers favor blondes over brunettes as popular feeding grounds. The girl on south Main, who has been both, says the doctor doesn't know what he is talking about; that her experience convinces her that mosquitoes and chiggers are unbiased, impartial and without prejudice."—Tulsa World, July 7.

"Fifty years ago a man was considered old at 60. Today he is only in the prime of life, with many years of usefulness ahead of him. In Poland the oldest inhabitant is still farming at the age of 132 and he isn't worrying about the approach of death . . . we appear to be enjoying longer lives . . . a fact which the average man is unable to explain. But perhaps our local physicians can throw some light upon a subject of such vital interest to us all. Speak up and be heard. Yes, speak up. They know and can tell why the span of life is lengthening, as well as why their professional income in like manner is dwindling." —Editor.

"A Barricade to Progress" is the way the Okemah News quotes Dr. A. E. Davenport, State Commissioner of Health, as regarding the Oklahoma physician. This alleged statement is inspired by the idea that we are lax and derelict in reporting deaths and births. No doubt many are so, but it is a good deal like the kettle calling the pot black. The writer recalls, when applying for the solution of nitrate of silver, provided free for the new born Oklahoma infant, that this same office of the State Commissioner of Health replied that it was so much trouble that they had not gotten to it yet and probably would not be able to supply it for several months. However, this was not under Dr. Davenport's regime.

Dr. C. M. Vaughan, Tulsa, is the physician who asked the courts for a permanent restraining order restraining the Tulsa County Medical Society and Dr. Charles H. Haralson, Secretary of the Society from giving Tulsa Hospitals a list of members of the Tulsa County Medical Society. As we recall it this is the same Dr. Vaughan, whom the Society, last year dropped from its rolls. He is not now among the "elect" for 1923, therefore, we are not greatly surprised at the source of the injunction sought. As is often the case, a member, probably

only hanging on the edges of medical respectability, seems to have been the instrument by which the intentions (though they were not attempted in secret) leaked to the men in question.

New Officers for the A. M. A. for 1923-1924, elected at the San Francisco meeting last month are:

President-Elect—William Allen Pusey, Chicago.

Vice-President—William E. Musgrave, San Francisco.

Secretary—Olin West, Chicago.

Treasurer—Austin A. Hayden, Chicago.

Speaker House of Delegates—Frederick C. Warnshuis, Grand Rapids, Mich.

Vice-Speaker House of Delegates—Rock Sleyster, Wauwatosa, Wis.

Board of Trustees—Term expires 1926: Chas. W. Richardson, Washington, D. C.; J. J. Upham, Columbus, Ohio; W. T. Williamson, Portland, Ore.

Judicial Council—W. S. Thayer, Baltimore, Md.

Council on Medical Education and Hospitals—Arthur Dean Bevan, Chicago; Louis B. Wilson, Rochester, Minn.

Council on Scientific Assembly—Roger S. Morris, Cincinnati, Ohio.

Osage County Doctors favor fixing standard rate of fees. Well, we do not, we do not believe such standardization will fit any community or render anything but harm to the doctors. In the first place, Osage, of all counties, has people with the financial ability to pay unbelievable fees; on the contrary, just like other communities, it has the very dregs of humanity, people unable to not only not pay a minimum fee, but utterly unable to pay any sort of fee. For these, to us apparently two good and sufficient reasons, Osage County should fix no bill whatever, but the individual should be allowed in his discretion to charge what he deems a reasonable fee, fitting the individual in question. There is another phase of it, too, which should not be overlooked by humanitarians: that is the custom of a certain element among us of wringing the last Shylock's penny from the poor and needy, and from which they have no possible escape. For instance, a railway employee, certainly not a Croesus at present, engenders a terrific, but absolutely unavoidable bill for services to some loved child or wife. Result, Dr. Shylock presents his bill in accordance with the standards set by the county medical society, the railway man knows he can never get it paid, but unless he does pay it Dr. Shylock promptly attaches his wages, files garnishment against the man with his employers, result, loss of position, man, children, wife on the streets and helpless. Doctors of all people should temper the winds to the unfortunate, should see to it that these loopholes are closed by which the heartless and callous wring every possible shred of money they can get from the helpless man who had to go to him in his hour of trouble over no fault of his, but over causes over which he had no control.

AN EXCELLENT SUGGESTION

Never, as this magazine has pointed out before, has the splendid and dignified title "Doctor" been more mishandled by usage than in the twentieth century. It is high time that the profession adopt the policy advocated by county medical societies in California and elsewhere—that of having physicians employ the letters "M.D." instead of the abbreviation "Dr."

The greatest living argument against the continued use of the prefix "Dr." is found in its abuse by the horde of cultists who are employing it without let or license. It is bad enough to have them at large, but they can at least be kept from overwhelming the community if they are forced to admit that they are not doctors of medicine.—Exchange.

CHIROPRACTOR LIABLE FOR CARE, SKILL AND KNOWLEDGE IN DIAGNOSIS

Chiropractic quibbling may not avail a chiropractor in Wisconsin, who through negligence, ignorance or unskilfulness fails to diagnose the disease from which his patient is suffering, according to a decision of the supreme court of Wisconsin, April 3, in the case of **Kuschler v. Volgmann**;[1] and in diagnosing a case, a chiropractor must exercise the care and skill that is usually exercised by a recognized school of the medical profession. The fact that chiropractors abstain from the use of words like "diagnosis," "treatment" or "disease," said the court, is immaterial. What they hold themelves out to do and what they do is to treat disease, and the substitution of words like "analysis," "palpation" and "adjustment" does not change the nature of their act.

The plaintiff, suffering from nausea, nervousness and headache following a head injury, applied to the defendant, a chiropractor, in September, 1918, for relief and cure. The chiropractor, believing that the nervousness and headache were due to a derangement of the stomach, treated him accordingly. Treatment proved unavailing, and the chiropractor advised the plaintiff, in May, 1919, to go West, in the hope of relief. The plaintiff did so, but the headaches and dizziness, from which he continually suffered, became more severe, and finally he became at times blind. Sept. 10, 1919, the plaintiff presented himself for treatment at a hospital in Chicago, and there his malady was immediately diagnosed as a brain tumor. An operation was done simply to relieve the intracranial pressure, for because of the long time the tumor had been allowed to grow, it was impossible to remove it.

The chiropractic defendant was charged with responsibility because of alleged negligence and want of understanding and skill. He demurred to the declaration, on the ground that one who treats the sick and injured is entitled to be judged according to the principles and methods employed by the school or sect to which he belongs, and he claimed that he had treated the plaintiff according to the methods used by chiropractors. The demurrer was sustained in the lower court. On appeal, the supreme court of Wisconsin said that had the complaint been grounded on neglect or unskilfulness in treatment only, the action of the trial court would have been correct. The complaint alleged, however, neglect or unskilfulness in diagnosis. While the duty of diagnosis is ordinarily assumed and performed by licensed physicians, it may be assumed by others, and the defendant having assumed to perform that duty was bound to exercise the care and skill in so doing that is usually exercised by a recognized school of the medical profession. The supreme court, therefore, overruled the demurrer and remanded the case to the trial court for further proceedings.—**Jour. A. M. A.**

FURTHER LIGHT ON THE USE OF TOBACCO AS A CAUSE OF AMBLYOPIA

June 11, 1923.

Dr. Claude A. Thompson, Editor,
Journal of the Oklahoma State Medical Ass'n.,
Muskogee, Okla.

Dear Doctor:

I have just read your criticism of my paper on amblyopia and especially with my reference to the use of tobacco as a cause of amblyopia.

In the first instance, the lay press, from which you are commenting, misquoted my remarks, but then you should always make allowance, when reading a quotation of a scientific article in a newspaper for their extravagance given to sensation.

I wish to take issue with you on the statement you make in your criticism "of course, everyone who knows aything about it knows tobacco does not cause blindness."

You have evidently forgotten your teachings on toxic amblyopia. Quoting from Tuch's, which was the principle text book on ophthalmology used in the medical schools when we attended college, says:

"Retro-bulbar neuritis is either acute or chronic in its development. The chronic cases usually depend upon chronic poisoning, particularly that produced by tobacco." Also "The cause of tobacco amblyopia is the excessive use of tobacco whether by smoking or chewing."

I do not know of a single authority that sustains your statement, that tobacco will not cause blindness.

I have had a number of cases in my own practice, and every authority on opthalmology that I have read cites tobacco as a cause of toxic amblyopia.

That you may have a clear conception of just what I stated, I am inclosing a copy for your perusal. Am inclosing postage for its return.

I take no offense at your remarks, however, I know in your criticism you were prompted by a sense of duty, only being mislead by the sensational way in which the lay press quoted me.

Yours very truly,
J. R. Phelan.

The JOURNAL is glad to publish Dr. Phelan's letter of above date. It would have had publication earlier, but was mislaid in another office while the matter was being considered by our expert advisor.—The Editor.

BOOK REVIEWS

APPLIED PSYCHOLOGY FOR NURSES. An introduction thereto by Donald A. Laird, Assistant Professor Psychology, University of Wyoming; Lecturer in Nursing Psychology, Ivinson Memorial Hospital School of Nursing, Illustrated. Cloth, 236 pages. Price $2.50. J. B. Lippincott Company, Philadelphia.

THE SURGICAL CLINICS OF NORTH AMERICA. Volume Three, Number Three, June, 1923. San Francisco Number. Paper, Illustrated 885 pages. Issued bi-monthly. Price $12.00 Annually. W. B. Saunders Company, Philadelphia.

This issue is filled with contributions from such pace-makers as Emmett Rixford, Walter W. Boardman, Edwin I. Bartlett, Alanson Weeks, Alfred Spalding and others which space prohibits noting. However, this issue is of the same high class maintained by its predecessors, and that is perhaps sufficient to say of its high character.

INTERNATIONAL CLINICS. Thirty-third Series, Volume Two. Edited by Henry W. Cattell, A. M., M. D, with the collaboration of Chas. H. Mayo, Sir John Rose Bradford, M. D.; Hugh S. Cumming, M. D., D. P. H.; William S. Thayer, M. D.; John G. Clark, M. D.; Frank Billings, M. D.; James J. Walsh, M. D.; A. C Phedran, M. D.; Charles G. Cumston, M. D.; Sir Humphrey Rolleston, K. C. B., M. D., D. C. L.; John Foote, M. D.; Seale Harris, M. D.,; Charles D. Lockwood, M. D., A. H.; and James Burnett, M. D. Cloth, illustrated, with several plates in color, 304 pages. Price $2.50 per volume, the series $10.00.

This issue starts out with a masterpiece on "Insulin" by Drs. F. G. Banting, who perfected the treatment, Seale Harris, of Birmingham, who has made diabetes and similar disorders of internal secretions and metabolism a special study for years, Louis P. Hamburger, who treats of the matter in connection with diabetes mellitus and Orlando H. Petty on the same subject. All together, it is a masterly array of known facts and deductions from real and experimental work. "Blood-Transfusion Made Easy," by Charles Goodman, M. D., makes of this subject, as is indicated, one of ease. "Problems in Surgical Diagnosis, Pathology and Treatment," by C. G. Cumston is an interesting article. "The Pathology of Will and Voluntary Action" is an unusual article dealing with obscure and deranged mental processes by Thos. Vernor Moore, Washington. Throughout this issue maintains the high standard always maintained by the International Clinics, a standard which makes every issue one worth while.

NEW AND NONOFFICIAL REMEDIES, 1923, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, $1.50. Pp. 415+XXXVI. Chicago: American Medical Association, 1923.

The progressive, up-to-date physician cannot dispense with the newer remedies, proprietary and nonproprietary. Yet he can neither select them on the basis of the manufacturers' claims alone, nor devote his patients to experiments while he tries out those claims.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually presents the American medical profession with disinterested, critical information about the proprietary medicines which are offered to the profession, and which the Council deems worthy of recognition. In addition to the descriptions of proprietary preparations, the book contains descriptions of those nonofficial remedies which the Council deems deserving of consideration by the profession.

A valuable feature of the book is the grouping of preparations in classes. Each of these is introduced by a general discussion of the group. Thus the silver preparations, the iodine preparations, the arsenic preparations, the animal organ preparations, the biologic products, etc., each is pre-

ceded by a general, thoroughly up-to-date discussion of the particular group. These general articles compare the value of the products included in the group with similar pharmacopeial and other established drugs which it is proposed that these proprietary preparations shall supplant.

A glance at the preface of this volume shows that the book has been extensively revised. In fact each edition of New and Nonofficial Remedies is essentially a newly written book, brought up to date by those who speak with authority on the various phases of therapeutics.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book) are given references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies should be in the hands of all physicians who prescribe drugs. The book contains information about the newer materia medica which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

THE PREVENTION OF RABIES

Dr. J. G. Cumming, formerly of Ann Arbor, Mich., has subjected rabies vaccine to certain manipulations which, it is claimed, make it perfectly safe in the hands of any physician, without in the least degree impairing its effectiveness. In fact, we are told that the Cumming vaccine (made from the brain of rabid animals) is more active confers immunity more rapidly, than the desiccated cord with which the classic Pasteur treatment is performed.

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Parke, Davis & Co., have a booklet on Rabies Vaccine which they offer to all medical inquirers free.

EPIDEMIOLOGY AND PUBLIC HEALTH in Three Volumes. Volume One a Text and Reference Book for Physicians, Medical Students and Health Workers by Victor C. Vaughan, M. D., L. L. D., Chairman of the Division on Medical Sciences of the National Research Council; Emeritus Professor of Hygiene in the University of Michigan; Assisted by Henry F. Vaughan, M. S., Dr. P. H., Commissioner of Health of the City of Detroit and George T. Palmer, M. S., Dr. P. H., Epidemiologist for the Health Department of the City of Detroit. Cloth, illustrated, 668 pages. Price $9.00. C. V. Mosby Company, St. Louis.

Volume one is devoted to the problems of respiratory infections. It is a waste of time to catalogue the various infections here considered, but the writer hopes to give the reader an idea of the beautiful and masterly manner in which Dr. Vaughan has handled his subject, by repetition of certain lines from the preface alone the very first of which attract and challenge the reader's attention:

"The most vivid, and certainly the most distressing pictures covering the walls of the memory chamber of my brain were painted by the invisible hand of epidemic disease. I spent the summer of 1865 in Southern Illinois, then known as Egypt, where at that time a frequent greeting was, 'This is my chill day.' The great majority of our friends and neighbors had a malarial paroxysm each alternate day. At the time of the World's Fair, Chicago, ... the fact that the water supply . . . . was badly and specifically polluted . . . . threatened the success of this exposition . . . . the commission found the water supply so badly contaminated that it recommended the laying of a pipe from the spring near Waukesha, Wisconsin, to the Fair Grounds. In pre-antitoxin days diphtheria was a veritable scourge in the Northwest. I saw in a village in Michigan diphtheria with every possible complication and sequel. The physician of the community had never seen the inside of a medical school . . . . the body was taken to the church, the school children filed in and each kissed the corpse." And so his story goes, covering the vast experiences of a lifetime, winding up with the World War, in which he saw much service. His personal experiences include observations during the time typhus, typhoid, yellow fever, dysentery were the great toll takers of human life. The book is divided into twenty chapters from albuminal diseases to weather and diseases.

CEREBROSPINAL FLUID in Health and Disease by Abraham Levinson, B. S., M. D., Associate in Pediatrics, Northwestern University Medical School; Attending Physician, Department of Contagious Diseases, Cook County Hospital, Attending Pediatrician, Sarah Morris, Hospital for Children of the Michael Reese Hospital; Attending Pediatrician, Mt. Sinai Hospital, with a foreword by Ludvig Hektoen, with 69 illustrations, including five color plates, second edition thoroughly revised. Cloth, 267 pages. Price $5.00. C. V. Mosby Company, St Louis.

DISEASES OF THE THYROID GLAND by Arthur E. Hertzler, M. D., F. A. C. S., Professor of Surgery in the University of Kansas School of Medicine; Surgeon to the Halstead Hospital, Halstead, Kansas; Surgeon to St. Luke's Hospital and St. Mary's Hospital, Kansas City, Mo., and to Provident Hospital, Kansas City, Kansas, with a chapter on hospital management of goiter patients by Victor E. Chesky, A. B., M. D., Associate Surgeon to Halstead Hospital. One hundred six original illustrations. Cloth, 245 pages. Price $5.00. The C. V. Mosby Company, St. Louis.

When Hertzler says anything about malignancy and its allied conditions, those who know promptly take notice, for they know something worth while is going to be said. Perhaps he has no superior in the America's when consideration of tumors is at hand. His years of arduous, systematic work and painstaking methods have produced the greatest compilation upon the subject known to the America Medical Public today. In this work there is no exception to the sentiments above stated.

EYE, EAR, NOSE AND THROAT

Edited by Jas. C. Braswell, M. D.
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THE ELECTROCOAGULATION METHOD OF TREATING DISEASED TONSILS.—Novak, Frank J., Jr.

Journal American Medical Assn., 1923, 1842.

Due to the favorable comment and wide spread publicity of the electrocoagulation method of treating diseased tonsils Novak used this method in a series of one hundred cases.

During the operation the patients were comfortable. No bleeding occurred and the dexterity and skill for the operation was no greater than that required to apply a swab of silver nitrate to the tonsil.

The results were unsatisfactory as all of the patients embarked on a stormy experience within a few hours after the operation. The pain was uncontrollable save by the administration of liberal doses of morphin. All experienced extreme difficulty in swallowing, much greater than that usually looked for after tonsillectomy. The palate was extremely edematous and speech was impossible. The reaction persisted through the sixth day and then gradually subsided. In a few of the cases the lower pole of the tonsil was present after operation.

The very severe reaction, the toxemia, the great pain and the extreme discomfort of the patient immediately following the operation are sufficient to condemn this method. There is no accurate way of determining the dosage to be applied. Nor is it possible to apply the heat with sufficient accuracy to insure the destruction of only the tonsillar tissue. The heat necessary to destroy the tonsil is great enough to penetrate and damage the surrounding tissues. If the aim is to obliterate a crypt, then there is no assurance that a purulent pocket in the fundus of the crypt is not sealed in by a covering of the resulting scar tissue.

The evidence gained by the author from his series of cases shows that the method of electrocoagulation is inaccurate, inadequate and unsatisfactory from the standpoint of the surgeon and patient. Such methods cannot in any manner compete with the accepted present-day methods of tonsillectomy.

LESSONS TO BE LEARNED FROM THE RESULTS OF TONSILLECTOMIES IN ADULT LIFE.—Alvarez, Walter C.

Journal American Medical Assn., 1923, 1513.

In an attempt to ascertain the value of tonsillectomy in adults the author carefully questioned 345 patients in whom a tonsillectomy had been performed during the past two or more years. The author also noted that one out of every four cases passing through his office had lost their tonsils.

In the cases suffering from frequent attacks of tonsillitis, the removal of the tonsils proved to be of much benefit. In rheumatic complaints and cleaning up points of focal infection, the author found that a large percentage of the cases had little, if any, relief from tonsillectomy. It is essential to make a careful physical examination before advising tonsillectomy as frequently other causes than a tonsil partially filled with cheesy matter are found. A review of the tables by Alvarez shows that the poor results in tonsillectomy, from the standpoint of improvement to the patient, occurs in cases where they have little, if any, trouble with the throat, such as tonsillitis and frequent attacks of sore throat.

The author thinks that tonsillectomy should be performed when there is sufficient evidence to warrant the removal of the tonsils but warns against the reckless method of trying to cure all diseases by such methods. Tonsillectomy should not be done for diseases of the throat until the internist has had sufficient time to carefully study the case. Conservatism is the rule except in those cases in which the patient is seriously menaced, or in which there is sufficient evidence for believing that the disease can be influenced by the removal of the foci of infection.

ORTHOPAEDIC SURGERY

Edited by Earl D. McBride, M. D.
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INFLAMMATION OF THE DEEP CALCANEAL BURSA.—Arthur E. Hertzler, Kansas City, Mo.

Journal A. M. A., July 7th, 1923. Vol. 81, No. 1.

He describes a bursa which is not constant but which has been found by him to cause symptoms in several cases, and in which operation effected complete cure. The bursa lies under the beginning portion of the abductor hallicus muscle, extending laterally to the point of origin of the flexor brevis digitorum. Beneath it lies the sheath of the tibilais posticus. The flexor hallucis longus and the flexor longus digitorum lie lateral to it. The bursa is separated by these tendons from the long plantar ligament. Clinically, there is tenderness in the front part of the heel just in front of the attachment of the flexor group of muscles, and lateral to the sustentaculum tali. Pronounced pain on deep pressure over this site is the characteristic symptom.

He removes the bursa by means of local anesthesia. A five cm. incision is made below the lower margin of the sustentaculum tali anterior to the spine. An elevator is then passed between the sheath of the tendon of the tibialis posticus tendon and the overlying soft parts. The bursa should be reached at a depth of from three to five cm. After curretting the site or dissecting the bursa, a gauze drain is passed into this area and allowed to remain three or four days.

FRACTURES OF THE FEMUR IN CHILDREN.—Carl G. Burdick and Irwin E. Siris of New York. Annals of Surg., Vol. LXXVII, No. 6, June, 1923.

Report on treatment and end results in 268 cases at Bellevue Hospital. The youngest was infant at birth and the oldest 13 years. The greater number were three to seven years. Fifty-five per cent were oblique, 35 per cent transverse and three per cent comminuted. Sixty-four per cent were in the middle third, 20 per cent in the upper third, and nine per cent in the lower third.

Treatment consisted of reduction under anesthetic by means of traction and children up to the age of six were suspended in a Bryant frame, with both legs at right angles to the body, traction being maintained by weights and pulleys, on a

horizontal bar. The suspension is continued for four weeks and the patient kept in bed another two weeks. In older children plaster spica was used in preference to other forms of splints. Plaster was applied from pelvis to the ankle, and moleskin adhesive straps which had previously been applied extended to a pulley at foot of bed furnishing traction. The Thomas and Hodgen splints were used in compound fractures, but proved impractical for simple fractures because of natural tossing and activity of the child in bed. Operative treatment was only resorted to in 7.5 per cent of 67 cases and in 3.5 per cent of another series of two hundred and one cases. The decrease in percentage was due to the adoption of the Caliper traction method. The only indication for open operation is interposition of muscle or fascia between the fragments, and this is extremely rare. It was not found in any of his cases.

The majority of cases in which the anatomical opproximation of the fracture was not satisfactory were followed for a period of six months to three years. The clinical course has shown that perfect anatomical reduction is not essential for perfect functional recovery in children. Marked displacement and over-riding of the fragments will usually result in a good functional limb without appreciable deformity, tilting of the pelvis or compensatory curvature of the spine. He also found that shortenin, which existed on discharge from the hospital, was not always permanent, and actually presented an appreciable lengthening within a year or two.

GENERAL MEDICINE

Edited by Wann Langston, M. D.
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THE STANDARD TREATMENT FOR MALARIA. C. C. Bass, M. D. New York Medical Journal —C. C. Bass, M. D. New York Medical Journal, CXVII, No. 12, June 20, 1923.

New York Medical Journal, CXVII, No. 12, June 20, 1923.

The Author quotes the National Malaria Committee: "For the acute attack ten grains of quinine sulphate by mouth three times a day, for a period of at least three or four days, to be followed by ten grains every night before retiring for a period of eight weeks." According to the Author, the definite symptoms of malaria, fever, or chills and fever, as well as other associated symptoms due to active malaria, are controlled by thirty grains of quinine a day. He believes unnecessarily large doses of quinine are given over unduly long periods of time, and states that attacks not relieved by the milder treatment are usually cases of incorrect diagnosis. During six years he has not seen a case fail to yield to the Standard Treatment, and has investigated many cases of reported failure, but not a case in which chills and fever due to malaria failed. One of the reported failures was a case of typhoid and malaria; two in which the quinine recorded as given was not given, and one in which a diagnosis was made on finding one suspicious looking object in the blood.

He concludes that cases not yielding to the Standard Treatment are extremely rare, and so far as his own experience goes, it is one hundred per cent effective in controlling the clinical symptoms of malaria.

BICHLORIDE OF MERCURY POISONING.—Thomas A. Carter, M. D., (The National Drug Clerk) XI No. 6, June, 1923.

The author reports his experience in the treatment of one hundred and twenty-eight cases with a loss of but eleven. He points out that while the poison has a specific action on the kidneys, it also has a very definite action upon the stomach and intestines. Where a large dose is taken, it may be found throughout the intestinal canal, and may be eliminated per rectum. This results in necrosis and minute hemorrhagic areas which enlarge and result in greater or less hemorrhage, which is difficult to control.

The Author's method of treatment:

1. Immediate gastric lavage, using plenty of water. Do not give eggs and milk.

2. Sodium phosphite Gr. VI; Sodium acetate Gr. IV; tablets II, crushed, in one-half glass of water, every hour, day and night.

3. Saline laxative or citrate of magnesia g. s., so that patient has two or three bowel movements a day.

4. Cleanse mouth and teeth frequently with alkaline solution.

5. Measure all urine voided each twenty-four hours. If urine is scanty or suppressed, increase antidote.

6. Hot water bag to abdomen for pain. Avoid morphine.

7. Diet: None for a few days; water freely, preferably distilled or boiled; continue starvation until danger of gastric hemorrhage is past.

8. Do not give hot baths; have patient rest in bed for at least one week.

HAY FEVER AND POLLEN THERAPY.—Ralph Oakley Clock, M. D.,—N. Y. M. J., CXVI, No. 4, June 20, 1923.

The Author defines Hay Fever as "A condition of hypersensitiveness to pollen proteins and is produced primarily by the inhalation of wind borne pollens." Only those who are sensitized develop hay fever. This sensitiveness increases with the patient's lowered resistance. The fact that only wind borne pollens cause hay fever eliminates the group of insect borne pollens, such as rose, goldenrod, honeysuckle, lily of the valley and daisy as important factors in the production of hay fever.

Pollens causing hay fever are grouped as follows: (1) Trees; (2) Grasses; (3) Chenopods; (4) Amaranths; (5) Docks; (6) Ragweeds; (7) Wormwoods.

Seasons and Causes:

1. February, March and April: Pollen of oak, ash, elm, cottonwood and walnut.

2. Spring Hay Fever, April to July: Pollens of grasses—timothy, June grass, red top and sweet vernal.

3. Summer Hay Fever, June to September: Chenopods, amaranths and docks.

4. Fall Hay Fever, August till first frost: Pollens of the ragweed group; in Pacific and Rocky Mountain States, artemesia group; in the Southwest, amaranth group.

Diagnosis of the particular group can be made by skin tests using asantigen, an extract of a representative pollen of the group.

Treatment: Desensitization with pollen extracts. The Author recommends fifteen doses of glycerolated pollen antigen, of a gradually increasing

number of pollen units (one millionth of a gram of pollen), beginning with two and one-half units and gradually increasing to one thousand units, administered subcutaneously. Pre-seasonal treatment yields best results. Desensitization is not permanent, and is at its height only for a few weeks—hence treatment must be repeated each year.

The Author reports 1578 cases showing remarkable uniformity of favorable results. He concludes: "In view of the favorable results reported herein, it would seem fair to state that the method of giving prophylactic injections of the glycerolated pollen antigen early in the season offers the best means of any method thus far advanced for the preventive treatment of hay fever."

TUBERCULOSIS

Edited by L. J. Moorman, M. D.
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THE DISCOVERER OF THE MODE OF PRODUCTION OF BREATH SOUNDS.—G. E. Bushnell, Jour. of American Medical Association, March 31, 1923.

Dr. Bushnell reported the discovery that it was possible to abolish all breath sounds, as heard over the larynx and the chest by a voluntary separation of the vocal cords. But he had been anticipated by a Frenchman, Beau, June 10, 1834. Beau had a patient with "effusion of the right pleura," in whom there was a marked bronchial souffle. Wishing to know how much of this souffle was due to the respiratory sounds, he instructed the patient to breath with less noise. The souffle was diminished and even made to disappear entirely by the patient opening his mouth widely. During all of this time the frequency and the depth of the respiration had not changed. "From these facts I conclude that the tubal souffle is not the result of the mechanical passage of air thru the bronchi, but is the resounding of a sound produced in the throat."—Beau. Beau then experimented on cavernous respiration, on consumptives, and decided that the cavernous souffle was also caused by respiratory sound in the throat. Beau concluded that the guttural sound was the result of the breaking of the column of inhaled air and exhaled air against the anterior and posterior surface of the veil of the palate.

The following are the conclusions that Beau drew from his experiments: 1. When the throat sound is suspended, the vesicular, bronchial, tracheal and cavernous souffle no longer exist.

2. If one suspends the guttural sound in one of the two respiratory movements, one hears no tracheal or vesicular sound in that movement not accompanied by the sound of the throat.

3. A few sheets of paper were rolled into the form of a tube and placed in the patient's mouth. They then took a deep breath and held it and the operator blew into the tube, and if the glottis remained open, he obtained, on auscultation, tracheal and vesicular sounds, as when the respiration was in progress. In 1856 Beau's view of his fundamental experiments were unchanged, and he emphasized with greater force, the point, that if respiration is continued for some time in such a way that one phase is audible and the other inaudible over the chest, air must necessarily have been admitted or expelled during the noiseless phase. Beau's work received little recognization. The orifice of the glottis is mobile and when the lumen is normal a distinct sound is produced in respiration, which increases with the narrowing of the orifice. The orifice of the glottis presents an obstacle to the passage of the air and this produces the glottic souffle. Beau was ignorant of the fact that the vocal cords, in life, overhang the cavity of the larynx and are ready, when not under willed tension, to flutter with the least current of air. Stoke's belief, that shallow breathing is necessary condition for suspension of the respiratory sound is unfounded. Beau said: "In asthma, inspiration is brusque, silent and gives no gutuural sound; to make it the patient throws back the head and opens the mouth wide. Expiration, on the contrary, is long and noisy. One hears in inspiration no vesicular, bronchial, or tracheal souffle, although the thorax rises. There is a spasm of the inspiratory muscles which dilates the respiratory passages. The air encounters no obstacle, therefore, we get no sound and we know that the vocal cords are not in their normal position in this condition.

The various dilating mechanisms of the upper air passages are linked together in a system. The dilatation of the rima glottidis is the most important of all devices for the removal of impediments to the passage of air into the lungs. When the person seeks to separate widely the vocal cords, he imitates the paroxysmal dilatation of extreme dyspnoea. In bringing into play one part of the dilating mechanism, one almost necessarily sets the whole process into automatic operation. With these muscular contractions is instinctively combined a mighty inhalation of air, so the lung may become overfilled.

Dr. Bushnell found that he could eliminate the harsher sounds and supposed the remaining sounds originated within the lung, but further work showed that the vesicular murmur could also be abolished when the cords were pressed against the walls of the larynx with great effort. Sound originating in the larynx and heard in the lung is carried down through the trachio-bronchial tube to the air cells; but the ear applied to the chest does not hear tracheal breathing, if the lung parenchyma is normal; the air cells do not permit all manner of sounds to pass through them. The pitch of the vesicular murmur and the pitch of chest note on percussion are the same and both are approximately of the pitch of the fundamental tone of the thorax as a resonator.

Laryngeal sound is a noise made up of a large number of individual tones and tones are selected by the various resonators, which are of, or near to their fundamental tones. Sound may be produced in the upper air passages by vibrations other than those of the vocal cords, which is difficult to distinguish from true respiratory sounds.

The fact is definitely settled that the sound of expiration as heard over the lung, is conducted from the larynx.

GROWTH OF SANATORIUM MOVEMENT.—Editorial, Journal of Outdoor Life, July, 1923.

In 1904 there were in the United States 115 sanatoria, with less than 8,000 beds for tuberculosis. Today there are 655 sanatoria with over 66,000 beds. In 1904 there were three State Sanatoria as contrasted with 58 today.

In 1904 there were practically no county hospitals or sanatoria, and relatively few municipal institutions of this character, excluding wards in alms houses, and similar institutions, most of

which have since been discarded. Today there are over 250 county and municipal hospitals for tuberculosis, with 22,000 beds. It is estimated that the present institutional equipment in the United States is worth over $165,000,000, and that the annual cost of maintenance is over $30,000,000.

This tremendous growth is due, in a large degree, to the educational campaign carried on by the National, State and Local Tuberculosis Associations. These organizations have been maintained, chiefly by the sale of Christmas Seals, receipts from which have amounted to $25,000,000 in the last fifteen years.

X-RAY DIAGNOSIS OF PULMONARY TUBERCULOSIS.—Harry Lee Barnes, American Review of Tuberculosis, May, 1923.

Material for study, 1,111 patients with complete clinical and x-ray records.

The physical examinations of the chest were conducted without any knowledge of the x-ray. iterpretation was made without the identity of the The x-ray interpretation was made without the identity of the patient being known. Stereographic films were made in those cases without positive sputum, and flat pctures in all positive sputum cases. The x-ray interpretations were based on the findings of specks, streaks, haziness, cloudiness and mottling. In this series of casese there were 592 with positive sputum.

In diagnosing negative sputum cases suspected of tuberculosis, one seeks by physical and x-ray examination to find the evidence of condensation of lung tissue which will fit in with the history of past and present symptoms, and by careful balancing of probabilities give us a diagnosis which, though lacking the accuracy of necropsy, is nevertheless the best that can be done for the living patient.

Of 592 positive sputum cases only five were read as negative to the x-ray, and re-reading of films showed that four of the five had slight changes at the apex. Of 592 positive sputum cases, x-ray evidence of involvement of the second apex, unrevealed by physical examination, was shown in six per cent. Of 592 positive sputum cases, in 380 or 64 per cent, the x-ray evidence of disease was more extensive than the physical signs. In 36 or 6 per cent the physical signs were more extensive, and in 176 or 30 per cent the amount of lung involvement was about the same as indicated by the two methods.

Of 310 apices of negative sputum patients, in which dullness or moist rales had not been found, 40 per cent showed abnormal x-ray densities. Of 728 apices of negative sputum patients showing dullness or moist rales, 36 per cent were negative to the x-ray. In negative sputum cases both dullness and rales were found in 40 per cent of the apices showing specks by x-ray. In 39 per cent of apices showing streaks and in 30 per cent of apices showing haziness.

THE SUBSEQUENT HISTORY OF CHILDREN DISCHARGED FROM TUBERCULOSIS SANATORIA.—Arthur T. Laird, American Review of Tuberculosis, May, 1923.

This study includes 163 children admitted to the Nopeming Sanatorium, all being under 12 years of age, with an average stay in the sanatorium of about ten months. Reports from other institutions are cited with varying results.

The most interesting of these reports is that of the Grancher Institute, founded in France about eighteen years ago. Healthy children, usually at least three years of age, are taken from tuberculous families and placed in the country in the families of healthy country people, where they remain to beyond the age of thirteen years. More than two thousand children have passed through the hands of this institute, and only seven cases of tuberculosis have developed among them, and four of these recovered.

The universal infection of these children in direct contact with open tuberculosis, is emphasized and consequently some provision is made for the protection of those children not already clinically tuberculous, and sanatorium management for those showing evidence of disease. For the latter extended sanatorium management with systematic follow up is advised. For the former the preventorium is recommended where children not needing definite medical management may be placed under proper hygienic surroundings, where they may have all the safeguards thrown about them without the expensive care of the sanatorium, and thus free the sanatorium beds for those in need of treatment.

This study would indicate that the prognosis (as is generally believed) is better after five years of age, and the results obtained are better in proportion to the length of time spent in the sanatorium. These figures show that the results, after five years of age, are about as good as those obtained in adults.

Under conclusions the following points are stressed:

1. The need of standard methods of obtaining data.

2. More efficient follow up systems, not only for the purpose of making statistics, but in the interests of the children against the necessity of prolonged supervision.

3. The necessity of adequate provisions for the continuation of the child's education where prolonged residence in an institution is necessary.

4. Children from families in which there has been an open case of tuberculosis, showed in this series a slightly larger percentage alive or well at last report, than the entire group included in the study.

5. Children not showing definite evidence of active tuberculosis upon discharge from a sanatorium, apparently do not develop the disease later more frequently than other children.

GENERAL SURGERY

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OLD MASTERS

Hippocrates, (460-370 B. C.) instituted for the first time a careful, systematic and paistaking examination of the patient's condition, including facial appearance, pulse, temperature, respirations, excreta, sputu, and localized pains and movements of the body.

He divided diseases into acute and chronic, and was the first to describe healing by first intention. Dislocations of the shoulder he said "are rarely inwards or outwards, but chiefly downwards," and

his methods of reduction are practically those of modern times.

He was particularly strong in his account of congenital dislocations, and in reducing and bandaging fractions. He was the first to notice that Pott's disease of the spine often co-exists with tubercle of the lung, and was familiar with clubfoot. He was familiar with fracture of the clavicle and dislocation of its acromial end and knew how to treat these conditions.

In the treatment of wounds, he said they should never be irrigated except with clean water or wine, the dry state being nearest to the healthy and the aseptic advantages of extreme dryness were utilized. He recognized that rest and immobilization are of capital importance. He described the symptoms of suppuration, and if water was used for irrigation it had to be very clean or boiled, and the hands and nails of the operator were to be cleansed.

In the operating room he laid great stress upon good illumination, posture of the patient and capable assistants.

He mentions trephining and paracnetisis but does not mention amputations. He noted that a wound of the left temporal region caused convulsions of the right side and vice versa. Hippocrates was the first to note the succussion sound obtained by shaking the patient on a rigid seat, the ear being applied to the chest.

G. A. WALL, M. D., F. A. C. S.

THE RELATION BETWEEN OBLIQUE INGUINAL HERNIA AND THE WORKMEN'S COMPENSATION LAW—Wainwright, J. M.

Archives of Surgery, Vol. VI, No. 2, Pp. 605.

The author quoting Berk who says "there is not an individual who having a hernia, at the moment when he noticed its existence, did not at once, attribute it to accidental cause, most often to an effort."

Many surgeons believe that practically no hernia is traumatic and should not be compensated, while labor bodies and social leaders believe just the opposite. The author believes that the present legal and lay attitude is unsound, unscientific and at variance with firmly established medical facts. A great deal of this confusion is due to the use of the word rupture as synonymous with hernia.

A rupture is a tear and a tear can only be caused by an accident. The author quoting various authorities shows that oblique inguinal hernias are dependent on the presence of a congenital sac. Russell never met with a case on the operating table that he had any reason to regard as a case of acquired hernia. He thinks that there is no difference between the hernia of adult life and that of childhood. The author feels that the saccular theory of hernia is now well launched, and goes on to give an extensive review of American, British, French and Italian literature on the etiology of hernia.

The views of the various authors quoted seems to be that a true traumatic hernia is a rare finding. The most of them feel that when the trauma occurred it only made an existing hernia apparent. That great majority of hernias which are referred to an accident have as the original cause a predisposition, created by a weakness of the wall or by a congenital defect, which has only hastened the appearance, or made manifest the existence of a hernia which existed unperceived.

Most authorities agree that hernia must give immediate evidence, by violent pain, shock and partial collapse, while one should find in the groin a small lump irreducible, in which each movement exaggerates the suffering, all this occurring within 24 hours accompanied by ecchymosis and edema.

Coley states that in 50,000 cases at the Hospital for Ruptured and Crippled there were only four in which direct trauma was a probable cause, and even in those the proof was not absolute.

He thinks it doubtful if traumatism alone without an open funicular process in the canal can ever produce a hernia. One case in 10,000, according to Morgan, would be a liberal estimate for hernia the result of trauma. If a hernia making its first appearance after an injury becomes strangulated it may be deemed of traumatic origin. Outten, who has had a large experience, feels the we should doubt the occurrence of traumatic hernia in every case. Medicolegally, the existence of traumatic hernia has not been proven. Moschowitz says, "that traumatic hernia does not exist." Plummer has seen many severe injuries of the abdomen, but never has seen an inguinal hernia follow in injury, even in the severest cases. Moorhead says "no single isolated act of violence causes a hernia, unless the overlaying parts have been lacerated."

The author lays stress on the differentiation between an old and a recent hernia at the time of operation. One error that is frequently made is to consider that a small thin nonadherent and empty sac is a recent one. The longer the delicate type of sac, the more certain it is to be congenital and if adherent to the tunica vaginalis or connected with it, it is certainly congenital. This paper is so long covering every phase of hernia, that we would recommend that the original be obtained and read, since the question of hernia and the compensation law is of paramount importance to the profession today.

INTESTINAL RUPTURE FROM EXTERNAL TRAUMA WITHOUT EXTRA-ABDOMINAL EVIDENCE.—Vance, Charles A.

S. M. J. Vol. XVI. Number 5, page 380.

The author calls attention to the fact which is apparently forgotten or ignored by the average general practitioner of medicine, that intestinal rupture may occur from externally applied trauma without the production of sufficient surface evidence to suggest serious visceral lesion.

That patients seen within 30 hours will emphasize the necessity for earlier surgical interferece, irrespective of any local or general symptoms, in cases of external trauma, and he justly criticises what he calls "the ancient and pernicious textbook dictum" that one should await the appearance of symptoms, definitely indicating visceral lesion before resorting to surgical intervention.

Citing from Curtis in 166 cases collected 30 years ago not a single one was subjected to operation and the mortality was 100 per cent. He gives Curtis' conclusions which were to the effect, that treatment of abdominal contusions should be expectant, in the early stages and that exploratory laparotomy in this stage is inadmissable, and when the diagnosis is in doubt, not until the symptoms of uncontrollable hemorrhage or serious visceral injury appear is celiotomy indicated."

According to Sherk, the mortality in 257 cases according to the time which elapsed between injury and operation was as follows:

64 cases operated within 6 hours, 48 recovered and 15 died.
36 cases operated within 12 hours, 24 recovered and 12 died.
29 cases operated within 18 hours, 13 recovered and 14 died.

This shows a definite increase in the mortality rate for every 6 hours delay in operating.

The death rate of early operations average less than one-third that of late operations. Pain shock and rigidity were present early in a large majority of cases. The author quoted feels differently than does Curtis, and says that all abdominal injuries should be kept under close observation, after a careful examination, no matter how slight the symptoms may be, if referred to the abdomen, we should consider the question of visceral injury. That the degree of violence bears no relationship to the extent of the injury. A most thorough investigation of the details of the accident should be made. He thinks that an active peristalsis is encouraging after an abdominal injury: Pain is important, only that it calls attention to the injury. Using what Murphy calls "a keen surgical sense" is what is needed by the doctor who first sees the patient. The author insists that an accurate history of the accident be obtained in every instance, as to the nature of the traumatizing agent the attitude of the patient when injured, probable force and direction of the violence and the time relation as to food ingestion. There are no pathognomic signs in the early stages by which visceral injury may be certainly recognized, and early diagnosis is often impossible.

He thinks that it is the imperative duty of the surgeon to intervene provided there exists even presumptive evidence of internal damage, for procrastiation means usually a fatal issue and exploratory operation is practically devoid of risk. Under expectant treatment with visceral injury the mortality is 100 per cent. He concludes by stating that the earlier operative treatment is instituted in these cases the greater possibility of saving life and the individual is entitled to this consideration.

A METHOD OF DETERMINING THE QUESTION OF DRAINAGE IN INTRA-ABDOMINAL INFECTIONS.—Willensky, A. O. and Berg, Benj. N.

Annals of Surgery, Vol. LXXVII, No. 5.

The question of drainage is acute abdominal cases is of paramount importance for in many cases the local findings make the institution of drainage imperative, such as perorative lesions associated with marked peritoneal contamination, frank abscesses and oozing surfaces.

But the question always arises in borderline cases and the old dictum "when in doubt, drain," still holds good in the mind of these authors. They submit what they term a rapid method to determine the decision as to primary closure or drainage in borderline cases.

Smears are made directly from the involved viscus and from any peritoneal exudates which may be present at the time of operation. By rapid staining the presence or absence of organisms is microscopically determined, and the degree and kind of infection present is obtained. This will be an index as to the proper procedure.

ARE YOU PREPARED FOR OPERATIVE WORK?

Note: The following was clipped from the circular of an institute for surgery and it seemed so apropos that it is reproduced.

If, during an operation for strangulated hernia, it was absolutely necessary for you to resect a part of the intestine, could you do it accurately, scientifically and quickly, either by an end to end anastomosis or by a lateral one? Can you quickly and definitely decide which is the approximate and distal portions of any part of the intestine? Do you know the jejunum from the ileum and its approximate distance from the ligament of Treitz? Can you quickly locate the ligament of Treitz, the right kidney pouch? Do you know how to do a posterior gastroenterostomy or an anterior gastroenterostomy or a resection of the stomach? These few questions should be fully considered since they are so very important, and during an abdominal operation any one of these procedures may arise.

CURRENT COMMENT

By The Editor,
Dr. Claude A. Thompson, Muskogee

Which has nothing, or nearly so, to do with matters medical, but which reflects current opinion, belief and comment upon the order of the day, whatever or wherever it may be. Contributions are invited from our members.

TWENTY-EIGHT PER CENT of Oklahoma's illiterate are housed, (exist) in Northeastern Oklahoma, according to Miss Nell Hunt, county superintendent of Muskogee County. Miss Hunt further says that in Oklahoma 56,000 people can neither read or write, that this condition is due solely to the absence of the "Little Red School House." Twenty-six hundred people in Muskogee County can neither read or write, a high percentage for a supposedly advanced county. The solution of this problem is not so much more school houses, but a better class of teachers. Poor teachers are a drag upon the body politic, will surely reflect their poorness in the coming generation while the better class of teachers will produce a higher grade of citizeship. We should demand the best only and pay them adequate salaries. The salaries now paid Oklahoma teachers would be scorned by many ignorant garage workers. It is amazing to one who knew how badly conditions once were to make a visit to some of the rural districts as they now are. Where formerly entire families were steeped in ignorance, the elders are still to be found generally in that state, but what an amazing change has occurred as to the younger generation. It is with pride that one realizes that the young Indians, children of the full-blood, can now read and interpret English correctly and write in a beautiful hand. All this comes from a few years of properly conducted study. No one thing can do more for our State than the improvement and maintainence at the highest level of efficiency of our public school system. That is one expense the taxpayer, we believe, will gladly stand for.

MEDICAL SOCIETY REMAINS SILENT ON PROHIBITION

Four Resolutions on Subject Killed by Association

The American Medical Association convention declined to go on record regarding prohibition. It killed four resolutions directed at provision of the Volstead act.

The house of delegates, representative body of the organization of 90,000 doctors, voted overwhelmingly to table the resolutions, which were offered by Doctors T. C. Chalmers, Forest Hills, N. Y., and V. G. Vecki, San Francisco.

Approval, however, was given to another resolution, also by Dr. Chalmers, recommending that pharmacists be permitted to sell upon prescription, bottles of bonded whiskey in sizes appropriate for medicinal purposes, to be dispensed in the original bottles.

Dr. William Allen Puzey, dermatologist and professor of skin diseases in the University of Illinois, medical college, was elected president, receiving four more votes than Dr. William D. Haggard, Nashville, Tenn., the only other candidate.

Chicago was chosen as the 1924 convention place. Olin West and Austin A. Hayden, both of Chicago, were re-elected secretary and treasurer, respectively. Dr. F. C. Warnshuis, Grand Rapids, Mich., was re-elected speaker of the house of delegates. Members of the board of trustees selected are Doctors J. H. Upham, Ohio; Charles Richardson, District of Columbia, and W. T. Williamson, Portland, Oregon.—Okla. City Times, June 29, 1923.

ABRAMS "Ossiloclast" is again named as a thing of dishonesty and graft in an article in the **Dearborn Independent** (June 30) by Robert Morgan. The article professes to show that the "ossiloclast" contains not an atom of electricity anywhere, anytime. This being the second and similar onslaught of this character against Dr. Abram's machine, we are wondering why Abrams does not "throw his hat into the ring," via the usual route which means a suit for damages against the **Independent.** Henry Ford is certainly able to pay the bill, regardless of its size.

"SIX PER CENTS" are the things Jack Dempsey is advised to scrutinize closely with a view to investment. This advice coming from the **Kansas City Star** is coupled with the idea that Jack, like Napoleon, may face the day with a "punch" all right, but without the ability to deliver it. This came from the condition of Dempsey, the man with a "punch," but without ability to deliver it, at times to the dancing Gibbons. The **Star** seems to think the day will come when some one will show up who has the ability to stay out of Dempsey's way altogether, at the same time conserving a "punch" which will place the fighter, in the status they all eventually reach, among the "has beens."

THE LEVIATHAN, the "Levi Nathan" as it is facetiously called by some one wishing to call attention to the fact that Mr. Lasker, the man above all others who may invade Mr. Harding's sleeping chamber when he wiils, and while men of greatness stand about rubbing their hands and wondering how much longer they will have to wait; Mr. Lasker's Jewish derivation; will demand that the taxpayers of the Nation expend upward of $90,000.00 for vegetables, ginger ale and fine cigarettes (it is not exactly set forth as to what purpose the ginger ale will be put to, though it is a known fact that by its lonely it is a most unattractive drink). While the Kansas, Texas, Oklahoma and Illinois farmer by the sweat of their brows struggle through their wheat harvest, paying wages impossibly high to harvest wheat at a price which is impossibly low, and surely in this condition by reason of the inactivity, delay and slothfulness of Mr. Harding's administration; Mr. Lasker will be gently wafted over the cooling breezes of the Atlantic, surrounded by the elite and cream of the land, even the enlivening presence of a great band to produce soothing music to his ear has not been overlooked. But, who cares? Have we not the struggling farmer to meet the bill? Suppose Mr. Lasker, in his laudable effort to boost himself further upward in the scale of public and executive favor, does spend a few hundreds of thousands cruising about the Atlantic and nearby waters, what of that? Have we not the farmer, the artisan, the typographist, the laborer in all walks of life to dig down in his pocket and foot the bill. Shame on you, you ungrateful critic. The nerve you have to wish that your Chief Executive's Jewish assistant stay at home and face the impending coal shortage, and the shortages of many other types we are sure to be confronted with.

SPEAKING OF LASKER. Another strange story is being bruited about. This time it again has to do with spending the taxpayers' money, but not on so many as the Leviathan carried on its broad decks, not on hundreds, but on even less than a dozen, to be exact, just ten of the favored mortals were present at the bounteous board, Mr. Lasker, of course, being one of them. The favors and food alone, including the flowers, cost an even one hundred dollars per person. Just think of it, wasting such impossible amounts upon impossible people. The only object of this meeting, it seems, was to have the "gang" foregather to hear Mr. Harding tell Mr. Lasker how well he had "botched up" the shipping board job and in turn to have Mr. Lasker tell Mr. Harding how well he looked in white duck with Laddie Boy trailing in the rear. Something more certain to give the working farmer and city struggler a thought or two to gum over. We can imagine their conclusions without much effort.

FRENCH AIR ACTIVITY

" . . . . What else can Mr. Baldwin's statement in Parliament mean? British air power must include a home-defense air force of sufficient strength adequately to **prepare us against attack by the strongest air force within striking distance of this country.**" "Mr. Baldwin's announced intention to increase the home defense air force from eighteen to fifty-two squadrons, almost tripling it, is a direct challenge to France. It is directed against no other power. France recognizes that and is replying in kind." "We are back in the poisonous atmosphere that made the European war inevitable." "Germany is disarmed; Austria is disarmed; Hungary and Bulgaria are partially disarmed; Russia has fewer soldiers than before the war—but Europe has more men under arms today that she had when the Great War found her an armed camp in 1914. She is still an armed camp. France, unable to pay interest on her own debts, unable even to pay the contractors for reconstruction in her destroyed provinces, France, which pleads despairingly for more reparations, lends 400,000,000 francs to Poland and 100,000,000 to Rumania, and main-

tains a military mission in Czecho-Slovakia, and accordingly those young powers born of the war to end the war, maintain armies greater even than those their imperial predecessors." "We ourselves have a larger army than before the war, and are constantly being urged still further to increase it."—**The Nation.**

Yes, indeed, the above is true and more. Every one of these little, helpless, bankrupt, newly created Nations are entering upon ambitious expenditures for military prowess never before dreamed of as possibilities. At the same time they are whining to be let off on the payment of their debts or not making any pretense at all toward paying them. France is assuming exactly that attitude, while England is manfully paying hers and states she will continue until she does pay all, which places England in the highest niche of self-respect of other peoples and nations.

What we, the United States should do, and quickly, is to advise France, Poland, Rumania and all others pursuing such tactics that we are tired of paying and will pay no more money to save the starving of a nation, which, while they neglect the starving children at their very door, attempt to negotiate immense loans for military waste. This is exactly the status of Poland, for instance, its army has no peer today in all Europe, when it comes to dress and the externals of military vanity. Yet Poland is worse than bankrupt and recklessly plunges onward toward financial destruction. They will go to any length to dress up their army, but to no length to feed their starving infants. Now the money, it should be clearly kept in mind, for all this extravagance comes from France, but France is unable to pay us a cent upon its huge indebtedness to us. We should at once advise France, through our Secretary for Foreign Affairs that we will not longer consider it good form to see France encouraging such waste on Poland's part, unless some material attempt is made to reduce France's indebtedness to us at the same time. Certainly, if this state of affairs were pressingly brought home to those who give large contributions to relieve distress among the poor of Southern and Eastern Europe a different line of action would at once be observed.—The Editor.

OKLAHOMA UNIVERSITY "Extension Department loses," according to press dispatches, due to failure of the legislature to match Federal appropriations available under those conditions only. Well, what of it? Are we not spending a few thousand "looking" for Fred Dennis and a few thousand elsewhere to placate the Reds and their schemes?

"MOST ASSININE LEGISLATION as to Health, Medical Licensure, Education," is the way most of our medical law efforts are described editorially by the Tecumseh, (Okla.) **Democrat.** "Rarely do physicians of sound judgment seek election to state legislatures. Or if they do, it is a half-hearted manner and without adequate support from the other members of their own profession." The matter could not have been more curtly or briefly stated than in the above summing up. That is exactly the case. As a rule, the physicians deliberately seeking these places are unworthy, while those who could and should occupy them through their worthiness, will not consent to accept them. The end result is that we have the most amazing spectacles in the way of public health legislation, the most impossible inroads upon the rights, collective and individual of the people as a whole. The matter will never end either until we have changed our entire attitude towards these matters and send to the legislature, not our weakness but our strength.

"WHILE PATRIOTIC GERMANS were burying with honor the remains of that great patriot, Quentin Roosevelt, behind their lines Mr. Edsall Ford was entertaining a 20 plate dinner party on Hog Island," said Mr. Thompson, past Commander Pennsylvania American Legion. We did not believe it, so we asked Mr. Ford's Secretary to enlighten us, if he would. He did not. Instead, he came back with this lame statement: "He (Mr. Ford) has preferred to ignore criticism such as you mention having heard, but because your letter appears to be a voluntary expression of good will, I wish to acknowledge it in his behalf, and thank you." Quite a cute reply, but it gets us nowhere. Mr. Ford could have instructed him to say pointedly that the statement was untrue, or true, as the case may have been. As it is, we are now in an uncertain state of mind, very much inclined to believe this Thompson person's statement, and to think of Mr. Ford as evasive and side-stepping the issue.

THE NON-PRODUCER

We have watched him with an appraising eye, often with a predetermined hostile attitude, the non-producer. We refer to the man who lives about apparently neither weaving or spinning, but certainly reaping, the other fellows' crops always. He is usually a mahogany topper, that is, his office furniture is of that character, and always, of course, paid for by the other fellow, never by his own sweat and brawn. He is particularly obnoxious as a member of the multitudinous soliciting committees, where he presents himself in the attitude of pleading and suave smoothness, for the other fellow, incidentally, often leaving a few tracts indicating his own line of special endeavor telling how he can sell you the very finest, non-contestable policy, cheaper than any other company, and with many other attractive features. He forgets the general attitude of the average mind to himself, forgets that he is neither a weaver or spinner, and proceeds to lay down a line of action telling the other fellow how much he should give to the deserving charity under consideration, considerately forgetting for the moment that the fellow in question may owe all he has in his pocket, all he may hope to make and save for months, to some other fellow, thus giving away every time he gives away a cent, money belonging to the other fellow, not himself. Yet impertinently goes along our non-producer, head up in the air, much sought after as an after dinner speaker, putting behind him his real status, which must, be he endowed with average intelligence, come to the fore occasionally once in a while to plague him by reminding him what he really is and really amounts to. He really waxes often indignant if his squirming victim asserts his constitutional rights by telling him he proposes not to give a darn cent to the matter in hand, that his money, for the nonce, belongs to some other fellow. That phases him not, grandiloquently he comes and goes his way, puffing at a costly Habana, paid for by the other fellow, curling smoke towards the ceiling he is unable to see why a busy man, trying to get away from debt and entanglemenet has not time to waste upon his worthy self and mission. The non-producer. Like him? We do not.—Editor.

WHAT WOULD YOU DO?

How do you act in emergency? Go to pieces, or simply throw your clutch into high and speed ahead?

Dr. Frank McGowan, New York surgeon, breaks his right arm when a touring car smashes into the ambulance in which he is rushing to an emergency case. What would you have done? Turned the job over to another doctor? Not McGowan. He and his assistant set his arm, bandaged it in splints. Inside ten minutes the ambulance clangs ahead. McGowan apologizing to his patient for arriving late.

Interesting example of how we can master crucial problems if we don't throw up the sponge and quit.—Muskogee Times-Democrat, July 6, 1923.

Yes, every once in a while we meet with the "subject," usually pointed out with awe and wonderment about bar-rooms, who actually took time by the forelock, operated upon himself for a broken arm—not by a jugful, he removed his own appendix or drained an infected (?) gall-bladder. We fail to see either heroism or common sense in such freakishness. On the contrary, we do see an obstinate, dangerous, illy balanced man, approaching without trepidation, that which skilled surgeons approach with a great deal of respect. Perhaps this New York genius, lots of them are built that way, knew there was no other man in the country who could do it as well as himself.

HOW TO KEEP SICK

By Dr. Frank Crane

Dr. C. F. Wetche has published an interesting little pamphlet on how to get sick, how to keep sick and how to make others sick.

This is welcome information and fills a long felt want.

Among the other suggestions made by Dr. Wetche, I note that the leading one is "Think sickness." That is, if you want to have any particular diseases, concentrate your mind upon it. There are times when a disease is very handy. When you want to dominate your husband it is often very effective to use the tyranny of tears. If you have worked up a lather of self-pity and want your wife's sympathy, it will be much easier if you can come home, fall limp into a chair and roll yours eyes.

Hence, if you wish to have a bad spell, say to yourself, "Day by day in every way I am feeling worse and worse."

Another valuable piece of advice is—Talk sickness.

It is well known that our words affect our opinions by a sort of reaction. Therefore, make it a point to talk about every sort of pain, itch, megrim or gripe that you may have had or have had or expect to have.

Talking sickness is easy and pleasant. It gets you sympathy and attention. It is the shortest road to being conspicuous.

Other pertinent hints are:

No work of any kind. Work greatly interferes with the progress of disease and sometimes even stops it. People who work right along do not seem to find time to be sick.

Eat as much as possible. Always eat a little more than you want. Particularly eat plenty of pastry and meat. These foods produce unhealthy fat and are full of various poisons which will be of great value in promoting your ailments.

Always drink ice water after meals so as to chill your stomach and prevent digestion.

When traveling, drink strange waters freely. This gives you a fine chance to get typhoid.

Don't chew your food. Bolt it. Wash it down with plenty of liquids. This saves times and is a good health preventive.

Don't think about what you eat. Eat what you like. Comfort yourself with the saying that what is one man's food is another man's poison and that nobody knows anything about diet anyway. Scorn all information regarding calories, vitamines and such nonsene.

Eat plenty of candy and drink quantities of soda water and ginger ale and the like. This will help you get rid of your teeth and also assist in securing diabetes.

Read the patent medicine advertisements. Try all new patent medicines. Consult quacks freely.

Never visit a regular physician when you are well in order to find out how to keep from being sick. Wait till you are very ill and then call him.

Worry as much as possible, read plenty of gloom literature and don't forget that everybody who is cheerful is a hypocrite.—Physical Culture.

THE DEARBORN INDEPENDENT, Henry Ford's Weekly, quotes Admiral William S. Sims, retired, as follows: "The appointment of an officer who is not a graduate of the war college to be Commander-in-Chief of the great United States fleet, is a crime against the people of this country. More than half the officers given preference in the transfers recently announced to take effect this summer are not graduates of the war college." The war college gives the officers training in the application of those doctrines which enable widely separated elements of a great fleet to co-operate as a single team and which enable the commander to make sound tactical decisions in time—that is, before the enemy can seize the initiative.

"DRAFTING HENRY FORD" is the manner by which some of his sallites would lead us to believe that Henry is very reluctant to have the Democratic nomination thrust upon him. They would actually have the guileless reader believe that Henry has some of the characteristics attributed to one late Julius Caesar, but we cannot see it that way at all, on the contrary, it seems to us that it is barely possible that should we nominate the wizard like manufacturer of "Lizzies" we might wake up too late to discover that our nominee had actually been laughed and ridiculed out of any sort of approach even to the presidential chair. It also seems to us that there is a very considerable amount of hysteria in all this talk of "Ford for President." Mr. Ford has never done anything to cause the American people to think seriously of conferring this great honor upon him. On the contrary, he has done and is responsible for some very bizarre, to us unexplainable things. For instance, his trip in the Good Ship Oscar II, was as badly timed, as badly misplaced, and useless and needless a trip ever made across the ocean by any man living or dead, so far as the expectation of serious end results were to be looked for. It is said that he had not the slightest assurance or warrant from anyone in authoritave position to know that he would be received at all, and if received, that he would not be politely, figuratively speaking, kicked down the back-stairs. The latter is more than seriously possible for the then German War Lord was cer-

tainly in no humor to be told "where to head in," least of all by any American. The trip has and bears more of the ear marks of some of the old crusades, predestined and foredoomed to failure, than to any other epochal event, if such may be honored with the rank of epochal. Mr. Ford is a good business man, there all analogy to the rights of the presidency end. He seems to have neither training or conception of many of the great principles or the finer things which go to make, all added into one flexile mass, what is termed a "good president." He has none of the finer attributes of political finesse, is just as likely to bungle into the parlor in his pajamas, giving out a mouthy statement of what "I would do to save the situation," as to be found following a dignified, proper course. He makes a good car, can get more out of a dollar than any other known labor excutive, but there ends his fitness for the Presidency, so we shall not have him for President. It is settled, we have decided it.—Editor.

AS TO MR. McADOO and others "who would be" president. Mr. McAdoo is all that is claimed for Mr. Ford, plus a good deal more. He, too, is an executive of no mean proportions, knows how to use a dollar, and has great living monuments all about us testifying to his great ability as organizer and builder of things, then the story is not ended at all. He has many political capabilities and experiences far above the high class politician and expert of the American world. He has an eye and thought and finger for every real problem affecting not only the America's but he knows well the intricate and constantly changing European political and economic situation as well. Anatolia and Mesopotamia are not strangers to this gentleman, while to some of his supposed opponents they are as Plutonion darkness indeed.

DOCTORS AS SPORTSMEN? You did not think so? Well just revise your opinion for they are "Sports" in the true sense of the word. A recent casual inspection of one page, advertising dogs, the real article in the canine species shows that of nineteen advertisers of the fine-haired animal, six of them were doctors. A recent issue of a National sporting journal contains as its piece de resistance, an article from Dr. Richard L. Sutton, Kansas City. His colleague, Dr. E. H. Skinner, is also a very well known out-doors man. Dr. Millington Smith, Oklahoma City, and Dr. G. H. Butler, Tulsa, like the outdoors so well that each year sees them twice or more hieing to the hills where rise the bass to the lure or whirrs the brown-breasted bob-white. Well, it does them good, nothing does quite so much good to the tired town dweller as a few days or weeks outdoors. Camps, with a little forethought, may be kept immaculately clean and it follows, fly-free. Other pests of insect life may be easily controlled by attention to local conditions and the proper use of screens. One word as to mosquitoes, as having bearing on the situation. The popular fallacy that links them with the South is indeed a fallacy, for the writer believes the largest mosquitoes of his experience were encountered just about timber line, and where the water was all from melting snow a few rods away. So, they are anopheles variety.—Editor.

THE LAZY OSAGE

Mr. Ford's **Dearborn Independent** (June 16) has this to say about the celebrated Oklahoma Loafer, the Osage Indian:

"While the Osage Indians of Oklahoma are idly wallowing in the inherited wealth of oil lands, the Blackfeet Tribe of Glacier National Park today has achieved a reputation for thrift that brings to its 3,000 members high compliments from the Indian Department. So much wheat was raised last year by these Indians that the Government had to build a $65,000 grist mill to grind their grain for them. This is the first time in the history of United States civilization of the Indan that a tribe has become self-supporting through its own thrift."

It has been the contention of your editor and many other Oklahoma observers over a term of years that the large appropriations annually shoveled out to the Osage tribe for farcial, blundering display and silly waste should end. Congress has before this taken the authority to legislate on other such matters, certainly it has a right by proper enactment to stop the foolish, laughable waste now the talk and scandal of a continent going on by reason of the antics of the ignorant, unwashed Osage with a pocket full of money for which he never worked and therefore has no idea the value of. Two things are utter strangers to these loafers: They are work and baths.

WHAT EVERYONE SHOULD READ

Is the title of an article in the **American Magazine**, by H. G. Wells, than whom a better advisor does not exist. So valuable is the advice that the **Scientific American** notes it as follows:

"Wells . . . . has a kind word for us which we cannot resist passing on to you. The great British historian and novelist says, in part:

Everyone, I think, should read such a weekly newspaper as **Nature**, of London, within its range the most honest and wonderful newspaper in the world, or the **Scientific American** to keep in touch with the ever-advancing boundaries of human knowledge and achievment. If there are people who cannot read such periodicals, then it is high time the schools that produce such people were looked into and shaken up to a higher level of efficiency. When I write of what everyone should read in a modern community I have, of course, to assume that the schools of that community have prepared them for their reading."

UNION LABOR: The Oklahoma City Trades and Labor Council have "demanded" the resignation or "firing" at the hands of the Governor, of Honorable Ben F. Lafayette, one of the State's best known and most honorable men, and Mrs. Pat Nagle, from the State Board of Affairs, all because the two recalcitrants failed and refused to award **all** of the State's printing to Union Shops. Well, these gentlemen might just as well get it out of their systems. The State should have its printing done by the **lowest competent bidder**, to all others the statement "no others need apply" should be hung out, and hung out and practiced in good faith. We take it that is exactly what Mr. Lafayette and Mrs. Nagle have undertaken to do, hence the growling at them. All we think about it is that if the Governor harkens and acts on the suggestion that he will have harder sledding than ever if he or any of his machine again come up for reelection. The slogan of all our officers should be "Oklahoma First."

GLOOM, DEEP SEATED is the only way the present attitude of Luther Burbank may be described. Speaking of his pet project "Sebastopol," where his acts of wizardry have been brought to successful termination, in the **Dearborn Independent**, he has this to say:

"I am seventy-four years old. My strength is

good for my age, but it is not what it used to be. I sold part of the Sebastopol experiment farm because I could no longer operate it. The remainder will have to be sold for the same reason. On the thirteen acres that are left at Sebastopol are 2,000 varieties of cherries, 1,000 varieties of plums, sixty or seventy kinds of selected chestnuts, between 300 and 500 varieties of pears and fifty or sixty varieties of quinces. There is also a walnut tree that, for many years, has produced each year $1,000 worth of walnuts. This tree is so superior to anything else in existence that I was once requested to supply 10,000,000 young trees like it to be delivered a million a year for ten years . . . . . too big an order for one tree. I could have supplied 65,000 annually had I been able to superintend the work. But I supplied only a few thousand." "When I am tired I sometimes feel that if the world does not care if the best varieties of plant life the earth has ever produced go to waste, I don't care either . . . if thousands of improved varieties on the Sebastopol farm be permitted to go to waste. And they will go to waste unless somebody gives them attention I can no longer give." "The finest plum tree I ever saw— a tree that bore an abundance of big plums as sweet as honey—broke down because an employe forgot to thin out the plums on the tree as I told him to do. The tree broke from the weight of its fruit and before I knew it, was dead." "A man now wants to buy three acres of Sebastopol for a chicken ranch. But the plants might as well be destroyed to make way for chickens as to be ruined by neglect." "I once offered Sebastopol for $100,000, but I would take a good deal less than that and be glad, if it were going into proper hands." . . . . . it should be in the hands of a State University. It seems a pity to convert it into a graveyard or chicken ranch."

It is regrettable that Mr. Burbank cannot understand other views of the life that is going on all around him except his own. It is a pity that he cannot understand, and apparently he cannot, that a gathering of bankers, of undertakers, physicians, each take themselves very, very seriously, each knows that his vocation is the important one to all mankind, others are important in a small relative way, but "my crow is the blackest" is the attitude of most crows, whether feathered or enbritches.—Editor.

FARMERS HIT RADICALS

REVOLT AGAINST "LIBERALS" MARKS CHICAGO CONFERENCE

Alleging Attempt to Turn Country Into "a Land of Lenine," More Conservative Faction Seeks to Gain Control

Chicago, July 5.—Farmer delegates today launched an attempt to regain control of the conference here to organize a third political party.

Their conservative leaders took the floor of the opening session and demanded that delegates abandon the leadership of the "liberal" group comprised of C. E. Ruthenberg, convicted communist; Alexander Howat, "outlaw" miners' leader, and others.

The "liberal" faction still was firmly in control of the minorities' coalition conference today. Farmers fighting them allege they are attempting to turn the country into a "land of Lenine."

Committees worked overnight on plans to effect harmony and get the conference started back to more conservative policies. Some progress was said to have been made.

The "conservatives" forced delay of the committee report on organization until the conference acted on policy and principles to govern the proposed party. The farmers obtained adoption of this special agrarian policy:

1. Elimination of landlordism and tenantry, with ownership of land confined to its users.

2. Public ownership of all means of transportation and communication, all natural resources and public utilities, to be operated by and for the people.

3. Issue and control of all money and credit by the government for service instead of profit.

4. All war debts to be paid by a tax on excess profits.

5. A moratorium of five days for all working farmers on their farm mortgages and debts.—Kansas City Star.

PROPAGANDA FOR REFORM

Calcium Therapy in Tuberculosis.—From a review of the literature, Maver and Wells concluded that there is no convincing clinical evidence of the value of calcium administration in tuberculosis. They believe that no deficiency in blood calcium exists in tuberculous patients. From carefully controlled animal experiments these investigators conclude that calcium administration does not affect the course of tuberculosis in animals. If the use of calcium compounds in the treatment of tuberculosis is to be continued, clinical experiments of a scientific character should be conducted. At the present time there appears to be no scientific basis for the use of calcium in tuberculosis. (Jour. A. M. A., June 2, 1923, p. 1619).

Cod Liver Oil in Tuberculosis.—Experiments carried out in the Hygienic Laboratory of the U. S. Public Health Service to determine the effect of cod liver oil on the tuberculosis of the guinea-pig failed to show any definitely beneficial effects. There was no evidence of the deposition of calcium when this element was administered along with the cod liver oil. These results warn against unwarranted optimism and justify critical investigation whenever calcium or cod liver oil are lauded as a specific in tuberculosis. (Jour. A. M. A., June 16, 1923, p. 1778).

Peptone in the Treatment of Migraine.—The Council on Pharmacy and Chemistry publishes a preliminary report on the experimental status of the use of peptone in the treatment of Migraine. Drs. Joseph L. Miller and B. O. Raulston report that the intravenous administration of Peptonum Siccum-Armour brought about improvement in a considerable number of cases. The Council points out that commercial peptones are heterogenous mixtures of uncertain composition, and that the results reported may have been due to tissue impurities rather than to peptone itself. It is, therefore, evident that the reported results cannot be made the basis for a rational treatment of migraine. Peptonum Siccum is stated by Armour & Co., to contain 90 per cent. of protein. Seventy per cent. of the protein content is in the form of peptone and secondary proteoses, while the remaining thirty per cent. is in the form of amino-acids. Those who wish to make experiments with peptone in the treatment of migraine should use the particular peptone used by Miller and Raulston or one which has an essentially similar composition. (Jour. A. M. A., June 30, 1923, page 1910)

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Meeting Place, Ardmore, May 1924.
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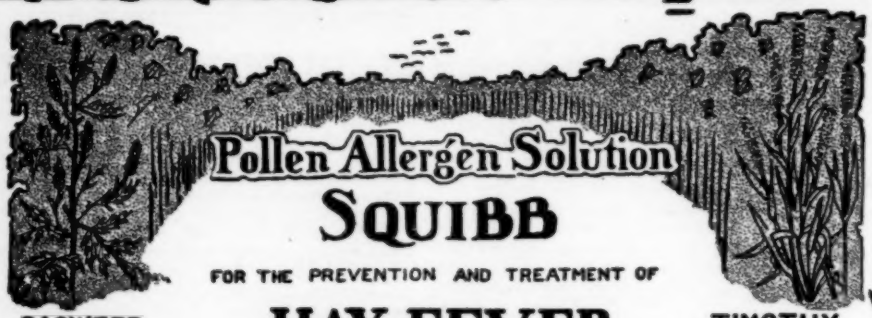

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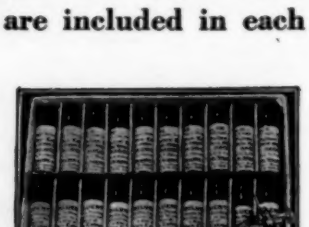

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